R O R S C H A C H  R E S E A R C H  E X C H A N G E

Published Quarterly by the

RORSCHACH INSTITUTE, INC.

Editor

Bruno Klopfer, Ph. D.

Assistant Editor

Camilla Kemple, M. A.

with the Cooperation of

Marguerite M. Hertz, Ph.D.
Cleveland, Ohio

L. Clovis Hirning, M.D.
Scarsdale, N.Y.

Douglas M. Kelley, M.D.
U. S. Army

Morris Krugman, Ph.D.
New York City

Zygmunt Piotrowski, Ph.D.
New York City

Donald Ross, M.D.
Canadian Army

Volume IX
Number 4

December
1 9 4 5.

## Table of Contents


| | Pages |
|---|---|
| 1. "Popular" Responses and Cultural Differences: An Analysis Based on Frequencies in a Group of American Indian Subjects..... A. Irving Hallowell, Ph. D. | 153 - 168 |
| 2. The Use of Content Analysis in Rorschach Interpretation: 1. Differential Characteristics of Male Homosexuals..... Floyd O. Due, Lt. Comdr., MC, USNR M. Erik Wright, Lt(jg), H(S), USNR | 169 - 177 |
| 3. Group Rorschach Testing in a Vocational High School..... Theodora M. Abel, Ph. D. | 178 - 188 |
| 4. Experimental Psychological Diagnosis of Mild Forms of Schizophrenia..... Zygmunt A. Piotrowski, Ph. D. | 189 - 200 |
| NOTES AND REVIEWS | |
| 1. The Similarity in Rorschach Patterns of Adult Criminal Psychopaths and Pre-Adolescent Boys..... George A. Geil | 201 - 207 |
| 2. The Efficacy of Group Therapy as Indicated by Group Rorschach Records..... Walter G. Klopfer, Pfc. Medical Dept., A.U.S. | 207 - 209 |
| Announcements..... | 210 - 215 |
| Index to Volumes VIII and IX..... | 216 - 218 |



The Rorschach Research Exchange is the Official Organ of the Rorschach Institute, Inc., 3820 Waldo Avenue, New York 63, N.Y., and is published quarterly by the Rorschach Institute, Inc., a non-profit corporation for the study and advancement of the Rorschach Method. Subscription price $5.00 per volume annually (calendar year). Single copies not available.



OFFICERS OF THE RORSCHACH INSTITUTE 1945-1946

Director: Bruno Klopfer, Ph.D.
New York City

President: Ruth Munroe, Ph.D.
New York City

Vice President: E. Louise Hamilton, Ph.D.
Philadelphia, Pa.

Secretary: Helen Davidson, Ph.D.
New York City

Treasurer: Gladys Tallman, M.A.
New York City

# "POPULAR" RESPONSES AND CULTURAL DIFFERENCES: AN ANALYSIS BASED ON FREQUENCIES IN A GROUP OF AMERICAN INDIAN SUBJECTS.

A. Irving Hallowell, Ph. D*

While the practicality and the fruitfulness of the Rorschach method in the study of personality among primitive peoples has now been demonstrated (2) this cross-cultural application of the technique has refocussed attention upon some perennial Rorschach problems. One of these is the scoring of popular answers. Can some of the same responses be scored P for groups of subjects with different cultural backgrounds, or do new panels of populars have to be compiled for every new group investigated?**

This paper aims at an elucidation of this problem both from a practical point of view and with reference to the underlying principles involved. From a practical standpoint it is directed at the kind of problem that anthropologists or others, who collect Rorschach data from subjects in primitive societies must face if P responses are to be reliably scored at all. Consequently I have drawn upon the results of my analysis of the locale, content and frequency of 3684 responses given by a group of 151 American Indian subjects, ranging in age from 6 to about 75 years.*** For it is apparent that,

---

*Professor Department of Anthropology, Northwestern University.

**As I pointed our in the article referred to above, "this problem raises no new question of principle when non-literate groups are taken into account. To ask whether the same response should be scored 'popular' among the English as the Swiss, or Germans and Americans, or the same among children of various age levels as among adults is a problem of the same order as asking whether a certain response should be scored 'popular' among the Alorese and the Saulteaux." Recently Dr. Harrower-Erickson has raised the same kind of question on the basis of the frequency analysis of 8526 responses of 340 subjects (college age group, 224 subjects; "normal" adult males, age 26-58, 34 subjects; psychotic and psychopathic personalities, male and female, 41 subjects; prison inmates, male, 41 subjects. She writes (3, p.134) "It is also worthy of note that there are only three answers which are given in over 50 per cent of the cases in all four groups. Popular answers, therefore, must be considered as less universal in character than one might have supposed, and to vary for the different subjects examined." It should be noted, however, that three of the groups are very small indeed, that one of them constitutes a highly selected sample of males (prison inmates) and the other is a pathological sample. Despite this fact it is interesting to observe, although Dr. Harrower-Erickson does not emphasize it, that nine responses, with a frequency of 1 in 4 or more, are common to three or more of the groups.

***Those up to 16 years (49 subjects) I refer to as children and the group of subjects over 16 years of age (102), as adults. These Indians live on the Berens River which empties into the eastern side of Lake Winnipeg in the Province of Manitoba, Canada. Locally they are known as Saulteaux, but they speak the Ojibwa language and are closely related to speakers of the same language and aboriginal cultural base living on reservations in the United States.

EDUCATION LIBRARY

whatever other considerations may be involved, no responses can have the interpretative significance attributed to P answers if nothing is known, or assumed, about their position in the frequency distribution of the total responses of a particular group. This frequency distribution, of course, takes the form of a "J" curve, P answers being selected from those making up the steep slope of the curve whereas the O responses, being the least frequent, constitute the level portion of the same curve. The great majority of responses, being neither P nor O, fall in between.

So far as subjects in our culture are concerned, wide experience in the use of the technique has furnished some empirical basis for the differentiation of a class of P responses even without the frequency data that have been compiled by a few investigators in recent years.* But in groups with an entirely different background of culturally constituted experience it cannot be assumed a priori that similar frequencies in the occurrence of certain responses, will hold. This is why the practical problem of scoring P (and O) responses in groups with different cultures is inescapable, unless these responses be altogether ignored.

On the other hand, while we cannot assume that the Populars recognized in general Rorschach experience with European and American subjects can be so scored in the records of exotic subjects without some information on actual frequencies, this does not mean that any such group of subjects will necessarily produce a set of Populars absolutely distinct from those of every other group, or that the concept of "universal populars" must be dismissed from mind. (cf. Klopfer and Kelley, 6, p.177). Any such assumption fails to give due weight to the intrinsic properties of the blot-figures themselves, and the relation of the qualitative and quantitative criteria that have been used in arriving at any given panel of P responses to the problem of intergroup correspondences and differences.

The whole problem of scoring popular responses is complicated, of course, by the fact that all Rorschach workers have never used the same panel of popular answers. In a survey made only a few years ago, M. R. Hertz discovered only six responses upon which five outstanding investigators agreed. She concluded (4, p.19) that "these forms are probably universally popular and their status is probably not affected by such variable factors as sex, age, race, or locality. It is fair to say that these items may be scored P in any record with a high degree of assurance." Although Hertz may not have had in mind the problem presented by non-literate peoples, it turns out that five of the popular responses recognized by experienced Rorschach investigators are also popular among my Indian subjects. Although this is an interesting and significant fact with reference to the cross-cultural application of the Rorschach technique, nevertheless, it likewise indicates the basic problem because the sixth response (Card IV, animal skin, hide, fur, pelt), did not turn out to be popular. It was only given by 15 per cent of my Indian subjects, whereas the same content to Card VI was popular. In this connection it is interesting to note that Klopfer, unlike all the other investigators listed in Table I, does not rate "animal skin" to card IV W as a P response.

However, even if further statistical investigations in various groups should support the universality of certain responses, I think we may assume that only a bare minimum of answers will fall within such a category.

*Hertz (4) gives popular responses for 300 urban adolescent school children. Beck (1) gives a revision of his panel of P responses based upon a frequency analysis of an unspecified group of subjects.

This assumption seems justified in view of the fact that although Hertz cites six additional responses to those referred to above which four investigators rank as popular on the basis of experience and which she says "may be scored P with some assurance," only one of these, "rabbit's face" (Card X) turned out to be P among my Indian subjects.* Indeed several of these additional popular responses were among the least frequent of all responses given. Spider or insect (Card X) for instance, was given only nine times by 151 subjects, four times by adults and five times by children; worms or caterpillars (Card X), while given nine times by adults, was not given by a single child. Thus, in approaching the problem of scoring P for subjects in a different culture if we once go beyond a small nucleus of answers that have been proved to be popular in general Rorschach experience, the question arises: whose panel of populars, if any, should be used? For even popular responses statistically determined for subjects in western culture do not solve the problem in an exotic group of subjects. Beck, for example, listed Card I D 3 (Klopfer D 3 also) "human form" as P. Among my Indian subjects this response did not occur at all among the children and only twice among adults. On a purely quantitative basis it thus approaches the O category among the Saulteaux. Beck also rates as P Card V D 1 (Klopfer d 2), "any human leg and most animal legs, including those of specifically named animals." This response occurred only three times among my 151 Indian subjects. It would appear then, that if P is to be given the interpretation ordinarily attached to it, frequency data are indispensable.

But there are still more fundamental problems in the determination of P responses that must be faced. Different Rorschach investigators have utilized variable qualitative and quantitative criteria in selecting their panels of P responses irrespective of whether ratings have been based primarily on experience or upon a compilation of actual frequencies. Klopfer, for example, considers "any creature with the body in the center D and wings at the sides" a P response to Card I (6, p.179). Gardner (see 4) and Schneider (9, p.19) consider only "bat" P; others score "butterfly" (or "moth") and "bat" P (Hertz, Beck, Loosli-Usteri); Vernon (see 4) and some include "bird" (Hertz, Loosli-Usteri). Beck, on the other hand, explicitly excludes "bird" (1, p.192). The level of specificity in content that makes a response P is thus seen to be one of the qualitative criteria upon which investigators are not in complete agreement.**

Quantitative criteria likewise have varied in the hands of different investigators. The standard of quantitative incidence that they have used as a means of distinguishing P responses from those of lesser frequency has not been uniform. Rorschach himself never discussed Vulgär responses in any systematic fashion. In fact the primary reference to them is to be found in his famous posthumous case study published by Oberholzer. Here, "a group of interpretations which are given by one in every three normal subjects" (8, p.186, note) is the only criterion mentioned. Most subsequent workers have been inclined to make use of a lower criterion of incidence such as one in four, five or even one in six, responses (4,p.3).

*Paradoxically enough, this response was not found to achieve a P rank in any of Harrower-Erickson's subjects.

**For discussion of other qualitative criteria, see Hertz (4) and Klopfer and Kelley, (6, p.178).

While any of the qualitative and quantitative standards thus far utilized may be debated, it must not be forgotten that the criteria adopted inevitably influence the number of populars that will be recognized, their actual frequencies in any particular group and thus the correspondences and differences between groups that may be anticipated.* If "bat", "butterfly" (or moth) and "bird" are included in the concept P for Card I W the frequency of P answers to that card will be higher than if on the concept "bat" is adopted. Barely 10 per cent of my Indian subjects gave the response "bat" to Card I W. If "butterfly" is included the percentage rises to 27 and if "bird" is accepted as well, the figure is 30 per cent for all subjects. From the standpoint of intra-group frequency as well as cross-cultural comparisons a high or low level of specificity in defining content is therefore crucial. "Bat" obviously does not qualify as a P response for my subjects and is of no inter-cultural significance. On the other hand, if "winged creature" is taken as the defined meaning of a certain class of responses to I W, then this answer not only becomes statistically significant in the group but it may be stated that my Indian subjects share a P answer with white subjects. In respect to any content that has reference to one specific animal alone it is perfectly clear that such a very high order of specificity may not only cut down the incidence of such answers in any particular group but that it may also rule them out completely if the test is used in a geographical area where the animal specified does not exist. This problem is exemplified in the response "rabbits face or head" in Card X. Beck, in particular, insists (1, p.195) that "no other animals or associations" be scored P even when the subject "accents the 'long ears'". Now there are no hares (rabbits) in the Pacific Islands. Consequently there can be no populars produced that correspond with this definition. On the other hand, a definition of content in more generalized terms such as "the head of an animal with long ears or horns," (6, p.180) permit the equating of the "rabbit" responses of European or American subjects with those of people who project the percept of some other animal with long ears or horns.** Surely such responses must be considered just as significant psychologically if these are to the same area of Card X and are of comparable frequency.

Differences in the frequency standards adopted in defining P answers also present a problem relevant to inter-cultural comparisons. The use of a standard of one in three as compared with one in six, for example, means that a comparison of the data from two groups might show no overlapping in P responses if the former standard were applied, whereas some overlapping might be discovered to exist if the latter criterion were used. I have already referred to the fact that five out of the six populars upon which Hertz found five investigators to agree were also found to be popular for my Indian subjects. My previous statement was made, however, without reference to either qualitative or quantitative standards.

If a one in three criterion is used only two of the universal P's referred to meet this standard. (VIII animal; III people) However, if "winged creature" is substituted for the P response to Card V instead of "bat" or "butterfly" as cited by Hertz, this card would also meet the one in three criterion. Card I approaches the same frequency if "winged creature" is

*Hertz recognizes 30, Beck 20, Schneider 13 and Klopfer 10 "selected popular concepts as substitutes for statistically verified ones."

**Donkey or goat in addition are specified as possible inclusions.

adopted as the content. But "animal skin" in Card VI becomes P in my Indian group only if a criteria of one in six is applied, the actual frequency for all subjects being 17.8 per cent.

## Frequency of Responses among Saulteaux Adults

We may now turn to the actual frequencies of the responses given by my Indian subjects. Let us first consider those of the adults. Table I gives the locale, content and frequency of the most commonly produced responses of these subjects arranged in rank order. The same tabulation shows whether or not responses to identical, or very similar locales, and with equivalent, or nearly equivalent, content have been scored P by any one of eight Rorschach investigators who have published data on European or American subjects. As I already have pointed out, the qualitative definition of the content of an answer given to a particular locale is so closely connected with frequency distribution that before discussing the cross-cultural significance of the tabulation as a whole, it will be necessary to indicate my own concrete definitions of content in order that the nature of the units whose frequencies were counted may be perfectly clear.

1. (VIII D 1) "Animal(s)." No problem arises in this case since no one has chosen a specific animal content, although Beck (1, p.194) rules out "foxes" and "the cats" including "lion" and "tiger." "Lynx," technically a cat-like animal, was given by four subjects and I included these.

2. (II W, D) "One or two animals." I have followed Klopfer here (6, p.17a) both for locale and content. The content includes "any animal or part of an animal of the dog, bear, rabbit, bull or rhinoceros variety." Other investigators have demanded a higher level of specificity as to area used and the species of animal included. I have indicated the major variants in Table I under each investigator's name. It seems to me that the really significant fact is the general agreement on the basic structural type of animal included. Stated negatively, slender-bodied, long-legged or long-necked animals never have been selected. From this point of view the frequency with which my Indian subjects exhibit the same type of projection appears significant. As a matter of fact bears and dogs make up the predominant content of their answers. A few saw rabbits and I may add that several children saw elephants. In this case the frequency would not be greatly affected if all animals except bears, dogs and rabbits were excluded.

3. (X D 7) "Animal head with long ears or horns." All adult responses to this area that were counted had the content "rabbit." The response of one child was "goat" which was included in the sum of the children's answers. The northern hare is one of the most common animals in the environment of the Saulteaux.

4. (V W, Ŵ) "Winged creature." "Butterfly" and "bat" together were given 38 times. If only these responses were counted the percentage would be 37.2 instead of 51.0 per cent. The additional responses counted were "bird" (11 times), insect (two times), and a bird-like mythical creature. More than two-thirds of the responses of the children were "butterfly," the rest falling in the same content categories as those of the adults.

5. (I W) "Winged creature." This response involves the same problem as No. 4, and has already been discussed.

TABLE I - MOST FREQUENT RESPONSES OF 102 SAULTEAUX ADULTS AND THEIR "POPULAR" RATING FOR WHITE SUBJECTS

| RANK ORDER | CARD | LOCALE (KLOPFER) | CONTENT | Indian Subjects | | SCORED "POPULAR" BY | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | N | % | HERTZ | BECK (1944) | LOOSLI-USTERI | VERNON | GARDNER | SCHNEIDER | KLOPFER | HARROWER-ERRICKSON |
| 1 | VIII | D 1 | Animal(s) | 96 | 94.1 | + | + | + | + | + | + | + | + |
| 2 | II | W, D | Animal(s) | 78 | 76.1 | Bear Rabbit Dog | Bear Dog | - | Bear | Animals | Bear | Bear Rabbit Dog, etc. | + |
| 3 | X | D 7 | Animal head with long ears or horns (Rabbit) | 56 | 55.0 | Rabbit | Rabbit | Rabbit Insect | - | Rabbit | Rabbit | + | - |
| 4 | V | W, Wh | Winged creature | 52 | 51.0 | + | Bat Butterfly Moth | + | Bat Butterfly Insect | Bat Butterfly | Bat | + | + |
| 5 | I | W | Winged creature | 38 | 37.2 | + | Bat Butterfly | Bat Butterfly Bird | Bat Butterfly | Bat | Bat | + | + |
| 6 | III | W, Wh | Human figures | 36 | 35.2 | + | + | + | + | + | + | + | + |
| 7 | IX | D 6 | Human figure | 36 | 35.2 | + | - | - | - | - | - | - | - |
| 8 | IX | D 3 | Animal head | 36 | 35.2 | + | - | - | - | - | - | - | - |
| 9 | X | D 11 | Small mammal | 29 | 28.4 | Dog Lion | - | Beast Lion Cat | - | - | - | - | - |
| 10 | VIII | D 3 | Tree | 27 | 26.4 | + | + (1937) | - | - | - | - | - | - |
| 11 | VII | D 2 | Animal's head | 27 | 26.4 | + | - | Elephant | - | - | + | - | - |
| 12 | X | D 10 | Small mammal | 25 | 24.5 | - | - | - | - | Dog | - | - | - |
| 13 | IX | D 4 | Human head | 23 | 22.5 | + | + | + | - | - | - | - | - |
| 14 | IV | W | Human figure | 21 | 20.5 | - | - | - | - | - | - | - | + |
| 15 | VIII | d 1 | Animal or animal head | 21 | 20.5 | - | - | - | - | - | - | - | - |
| 16 | VI | W, D 1 | Animal skin | 20 | 19.6 | + | + | + | + | + | + | + | + |
| 17 | IX | d 1 | People, tree, and animal | 20 | 19.6 | - | - | - | - | - | - | - | - |
| 18 | II | W, Wh | Human figures | 18 | 17.6 | + | + | - | + | - | + | - | + |
| 19 | VIII | D 6 | Animal or animal head | 18 | 17.6 | - | - | - | - | - | - | - | - |
| 20 | III | D 2 | Mammal with tail | 18 | 17.6 | - | - | - | - | - | - | - | - |
| 21 | II | D 1 | Butterfly | 17 | 16.6 | - | + | - | - | - | - | - | - |
| 22 | VII A | W, D3, D4 | Human figure, human head | 17 | 16.6 | + | + | - | + | - | - | - | + |
| 23 | VII | D2 | Human head | 17 | 16.6 | - | - | - | - | - | - | - | - |
| 24 | IV | W | Winged creature | 16 | 15.6 | + | - | Bat | - | - | - | - | - |
| 25 | IV | W | Animal skin | 14 | 13.7 | + | + | + | + | + | + | - | + |
| 26 | VII | W, D | Clouds | 11 | 10.7 | - | + | - | - | - | - | - | - |

6. (III W or W ) "Human figures." No problem.

7. (IX D 6) "Human figure" and 13. (IX D 4) "Human head." Beck rates as P "head or face, nearly always of a man" to his D 4 of Card IX (1, p.194). This area corresponds to Klopfer's D 4. It is to this same area that 22.5 per cent of my adult subjects gave answers with a similar content. Hertz and Loosli-Usteri, like Beck, score these P. Hertz, however, found that a larger part of the pink area (usually half of it, her area 3) was very frequently used, the content being "child sitting up," "person sitting up," etc.. This is Klopfer's D 6 (all the pink or half of it). No. 7 in my table refers to half the pink area and many more subjects (35.2 per cent) used this area than D 4, the content being "human figure" (child or adult).

8. (IX D 3) "Animal head." No problem. Hertz is the only one who has rated this P among whites.

9. (X D 11) "Small mammal." This definition is of my own devising. Most of the answers of adults were "beaver or dog" (18 out of 29). Other animals were: ground hog, porcupine, muskrat, gopher, pig, sheep, rabbit. The content range among the children was less. Out of their 10 responses with an animal content, four are "rabbit." Hertz and Loosli-Usteri, who alone score this area P on the basis of what appears to be a more restricted animal content, recognize "dog," "lion," and "cat". But Loosli-Usteri also recognizes "beast". (See 4, p.13.)

10. (VIII D 3) "Tree." As will be seen in Table II, this response is much more popular with the children than with the Indian adults. Beck formerly scored it P.

11. (VII D 2) "Animal's head." In this case my definition of content is the same as Schneider's. Hertz records the fact that Loosli-Usteri recognizes "head of elephant" as P but she herself accepts any kind of "head." Hertz writes, (4, p.13, note) "Most responses to the middle third of the figure were in terms of animal's face or head. 'Face' or 'head' was frequently given, however, without determination; and frequently subjects could not determine which they meant, animal or human. Any face or head, therefore, is accepted as a popular response." So far as my Indian subjects are concerned, there was little equivocation, even in their spontaneous responses, and the inquiry made clear the distinction between animal and human heads. There were 27 adult subjects who gave "animal head" (usually with a concrete reference) and 17 who gave "human head." (See No. 23.) If Hertz' content were taken as a criterion the total of 44 would rank No. 5 in the series.

12. (X D 10) "Small mammal." As in the case of No. 9 this is my own definition of content. The animals referred to, however, vary less in range. Dog is extremely prominent (13 out of 25 responses of adults and five out of the 10 responses of children) which is interesting in view of the fact that Gardner found dog popular in his series. Another animal image projected by five adults and four children was the cougar, or mountain lion. While this animal no longer is found in their environment and, indeed, has assumed a prominent mythical role in their thinking, the projection is in fact an excellent one. In the case of six adult subjects, no species was mentioned at all.

13. (IX D 4) See No. 7 above.

14. (IV W) "Human figure." While the interpretation of this blot as some kind of "human figure" is often given by white subjects*, it never seems to have been given with sufficient frequency to have attained a P ranking in the experience of most Rorschach workers. Until I discovered that it was given by 29 per cent of the 34 subjects of Harrower-Erickson's adult group**, (3, p.133) I thought it might represent a unique P for my Indian subjects.

15. (VIII d 1) "Animal or animal head." This is the first response so far listed for which there is no P rating to be found for an identical or very similar response among white subjects as recognized by at least one investigator.

16. (VI W or D 1) "Animal skin." It should be noted that this response occurred among barely one in five of my subjects despite the fact, as already noted, that it is rated P by all Rorschach experts.

17. (IX d 1) "People, tree and animal." This response has as great a frequency as No. 16 for my adult subjects.

18. (II W or W ) "Human figures." has been rated P by five of the eight investigators listed.

19. (VIII D 6) "Animal or animal head." Apparently this is a fairly frequent response for the Saulteaux only.

20. (III D 2) "Mammal with tail." The predominant answer here is "cougar" (11 out of 18 responses by adults). This animal is characterized by its long tail which has been carried over into the mythical image.

21. (II D 1) "Butterfly." It will be noted that this is one of Beck's populars.

22. (VII W, D 3 or 4) "Human figure, human head." The large upper details of this card, with or without inclusion of the middle details and the lower portion of the blot are often seen as human heads or people, sometimes engaged in conversation. Among white subjects such persons are so often seen as women (see 4, p.10) that Beck (1, p.193) in rating the response as P insists that "the female head form is the nucleus of the response." On the other hand Vernon recognizes two persons talking, scolding or frowning as P. Among my Indian subjects sex was not usually referred to, so that Beck's insistence upon this feature would necessarily reduce the comparability of the incidence of the response as found in this group and among whites. Many of my subjects saw people or heads in the cards when turned upside down. None of these responses is counted in the figure given in the table. Neither Hertz nor Beck score responses P except with the card in an upright position.

23. (VII D 2) "Human head." The locale is the middle third of the blot figure and the card may be held in any position. It will be noted that the response "human head" to this area was just as frequently given as the two foregoing responses but, unlike them, it has never had a P rating among white subjects.

---

*See, for example, Rickers-Ovsiankina's Rorschach Scoring Samples (7).

**An incidence of one in four responses is the quantitative criterion used for a P response.

24. (IV W) "Winged creature." Loosli-Usteri scores only "bat" P, but in her subjects Hertz found the response "bat or bird," on the one hand, and "butterfly, fly, moth, winged insect" almost as frequent. Both rate P according to her statistical criterion. "Bat" and "butterfly" account for nine of the 16 responses among my adult subjects. "Insect" was given as often (three times) as "butterfly." "Flying squirrel" was another response and two subjects gave "thunderbird," a mythical flying creature. The responses of my child subjects were "butterfly" (three times), "insect" (three times), "bat" (once).

25. (IV W) "Animal skin." The low frequency of "animal skin" in my adult subjects is striking for two reasons. First, because it has proved to be a frequent response among white subjects and is scored P by all investigators except Klopfer. Secondly, because it is much more frequent among the Indian children than the adults, 18.3 per cent of them producing it as compared with 13.7 per cent of adults.

26. (VII W or D) "Clouds." Beck is the only investigator who scores "clouds," P for white subjects. While this answer is of low frequency for my adult subjects (10.7 per cent) it occurs much more frequently among the children (26.5 per cent).

## Saulteaux Frequencies and P Ratings in Other Cultural Groups.

An inspection of Table I as a whole reveals several interesting facts. The six most common responses of Saulteaux adults are either identical with, or they closely approximate, responses scored P for white subjects by most of the investigators listed. Four of these responses (Nos. 1, 4, 5, and 6) are among the six Hertz thought to be "universal." This is a cross-cultural fact of prime importance and lends empirical support to the idea that when actual frequencies from other non-literate peoples are worked out with care, some "universal populars" may be anticipated.

We already have some further data available. Dr. Dorothea Leighton has compiled a list of the responses of a series of Navaho and Zuni children which occur one in five times or more.* In both groups the response, "animals" in Card VIII, attains first place, just as among my Saulteaux adults and Saulteaux children (See Table II). "Winged creature" (Card V) is second in frequency for the Navaho and third for the Zuni. "People" (Card III) is third in rank among the Navaho children but is not found among the ten most frequent responses of the Zuni. "Animals" (Card II) occupies second rank for the Zuni, fourth for the Navaho. The "rabbit head" (Card X) ranks fifth among both Zuni and Navaho.

The high frequencies of some of the same responses among Saulteaux, Zuni and Navaho subjects as have been found among white subjects is very striking from a cross-cultural standpoint because these Indians not only differ in cultural background from ourselves, they differ from each other as well both in language and culture.

---

*Based upon data collected as part of the Indian Education Research Project sponsored by the United States Office of Indian Affairs and the Committee on Human Development of the University of Chicago. The frequencies referred to are based upon the records of 106 Navaho boys and girls ages six to 18, and 83 Zuni children of both sexes ages eight to 18 years.

An inspection of Table I also shows that of the 26 responses whose frequencies are tabulated, there are only five (Nos. 15, 17, 19, 20, and 23) that have not been scored P for some group of European or American subjects by at least one investigator. And half of the responses listed have been so scored by two or more investigators. The highest number of correspondences is with Hertz and Beck, two of the three investigators who have arrived at their "populars" through quantitative studies. These facts demonstrate that there are a considerable number of responses given by whites of different age groups and adult Saulteaux subjects which are equivalent, or almost equivalent, in content, and which occur with a frequency of at least one in six times among both sets of subjects*, since no investigator has adopted any lower quantitative criterion as a basis for P rank. If this criterion were adopted for the Saulteaux, 23 responses would be scored P. Of these, five would be specific to the Saulteaux as a group, 18 would correspond to populars scored for European or American subjects, and 16 would be found on Hertz' panel of popular responses.

## Frequency of Responses for Saulteaux Children

There is, however, another aspect of the problem of scoring P responses still to be considered. To what extent do the responses of Saulteaux children, considered as a group, parallel in their frequencies the responses of adults tabulated in Table I? The answers to this question will be found in Table II. It consists of a tabulation of the frequencies of the responses of adults found in Table I against each one of which is matched the frequency of the corresponding responses of the children. I have also given the rank order of each response and the percentage of all subjects giving it when the responses of adults and children are combined.

Table II shows that the first four responses of highest rank among adults are also the responses with the highest frequency rank among the children, although "rabbit's head" (Card X D 7) ranks second for the children and third for adults. As has been pointed out, these same responses are among those that have been found to have a high frequency in other cultural groups.

The curve formed by adult responses begins to flatten out after a frequency of 24.5 per cent has been reached; the response which represents this value is twelfth in rank order of frequency in the adult series.

While the responses of the children by no means follow the same rank order of those of adults so that their answers do not form a parallel curve, nevertheless two striking observations can be made: First, with one exception ("clouds," Card VII W, D), all the responses of the children with a frequency of 20 per cent or over are those which, among adults, have a frequency of 24.5 per cent or over. Second, with two exceptions ("winged creature" Card I W, and "animal head" Card VII D 2), none of the responses among adults which have a frequency of 24.5 per cent or over occurs with a frequency of less than 20 per cent among the children. In the case of "winged creature" (Card I W), this frequency probably would have been reached had it not been for a variation in administrative procedure. With the adults and most of the children I used a trial blot. If I had not omitted it with some of the children I believe that fewer of them would have rejected Card I. Generally,

*Responses numbered 25 and 26 expected. These occur more than one in six times among Saulteaux xhildren (see Table II) and have been listed for that reason.

TABLE II. MOST FREQUENT RESPONSES OF 49 SAULTEAUX CHILDREN COMPARED WITH THOSE OF ADULTS.

| CARD | LOCALE (Klopfer) | C O N T E N T | PERCENTAGE OF SUBJECTS ADULTS | CHILDREN | ALL SUBJECTS | RANK ORDER ALL SUBJECTS |
|---|---|---|---|---|---|---|
| VIII | D 1 | Animal(s) | 94.1 | 91.8 | 93.3 | 1 |
| II | W, D | One or two animals | 76.4 | 57.1 | 70.1 | 2 |
| X | D 7 | Animal head with long ears or horns (rabbit) | 55.0 | 67.3 | 58.9 | 3 |
| V | W | Winged creature | 51.0 | 44.8 | 49.0 | 4 |
| I | W | Winged creature | 37.2 | 16.3 | 30.4 | 9 |
| III | W, W | Human figures | 35.2 | 36.7 | 35.7 | 5 |
| IX | D 6 | Human figure | 35.2 | 24.5 | 31.7 | 7 |
| IX | D 3 | Animal head | 35.2 | 20.4 | 30.4 | 8 |
| X | D 11 | Small mammal | 28.4 | 20.4 | 25.8 | 10 |
| VIII | D 3 | Tree | 26.4 | 42.8 | 31.7 | 6 |
| VII | D 2 | Animal head | 26.4 | 6.1 | 19.2 | 12 |
| X | D 10 | Small mammal | 24.5 | 20.4 | 23.1 | 11 |
| IX | D 4 | Human head | 22.5 | 8.1 | 17.8 | 14 |
| IV | W | Human figure | 20.5 | 4.0 | 15.2 | 18 |
| VIII | d 1 | Animal or animal head | 20.5 | 4.0 | 15.2 | 21 |
| VI | W, D1 | Animal skin | 19.6 | 14.2 | 17.8 | 13 |
| IX | d 1 | People + tree + animal | 19.6 | 6.1 | 15.2 | 22 |
| II | W, W | Human figures | 17.6 | 16.3 | 17.2 | 15 |
| VIII | D 6 | Animal or animal head | 17.6 | 10.2 | 15.2 | 20 |
| III | D 2 | Mammal | 17.6 | 4.0 | 12.1 | 26 |
| II | D 1 | Butterfly | 16.6 | 10.2 | 14.5 | 23 |
| VII | W, D3, D4 | Human figures or human head | 16.6 | 8.1 | 13.2 | 24 |
| VII | D 2 | Human head | 16.6 | 6.1 | 12.1 | 25 |
| IV | W | Winged creature | 15.6 | 14.2 | 15.2 | 19 |
| IV | W | Animal skin | 13.7 | 18.3 | 15.2 | 17 |
| VII | W, D | Clouds | 10.7 | 26.5 | 15.8 | 16 |

there is a very close correspondence between the series of answers which occur with a frequency of one in four among adults and those which occur with a frequency of one in five among the children.* In three instances, in fact ("Rabbit's head" (Card X D 7), "human figures" (Card III W, W ) and "tree" (Card VIII D 3) the frequencies of the children are higher than those of adults.

When the frequencies of adults and children are combined it is found that the twelve responses of highest rank for adults are the most frequent for the total series of subjects, although the rank order is somewhat different. From a quantitative point of view these twelve responses occur approximately 1 in 5 times or more, the lowest (No. 12) having a combined frequency of 19.2 per cent. This response, incidentally, happens to be one of the two answers referred to above in which the frequency for children dropped below 20 per cent.

If Table II is carefully inspected it will be noticed that the rank order of responses in the combined series beyond No. 12 begin to scatter because of the discrepancy, in most instances, between the percentage of responses given by children as compared with adults. For this reason, added to the fact that the curve for the adult series breaks at the same place, I decided to limit the panel of Saulteaux populars to responses 1 to 12 in the combined series.

## Age Level and Popular Responses

The rating of the responses chosen as P for my Indian subjects can be tested in another way. How are they distributed when the children are classified by age groups? Do these P responses vary from one age level to another, or are they more or less evenly distributed at all age levels?

---

* There is a basic methodological question here that I shall not attempt to answer. That is, it may be argued that since children are growing into an adult world that it is fair to measure them by adult standards and thus to choose a panel of populars on the basis of adult frequencies alone. In general Rorschach literature, however, age variability in relation to P responses has not been systematically discussed. Hertz ignored variability in age and compared the P scoring of different investigators irrespective of the age range of the subjects upon which their experience had been based. Beck, moreover, says nothing about the age range of the subjects upon which his statistical determination of populars is based.

The pioneer study of the quantitative aspects of P responses in relation to successive age levels is to be found as part of the analysis of the records of 138 children between the ages of 2 and 6.11 years that were studied by Kay and Vorhaus. The percentage of children at five successive age levels who made use of the P responses designated by Klopfer were tabulated. See Lillian W. Kay and Pauline G. Vorhaus, Rorschach Reactions in Early Childhood. Part II, Rorschach Research Exchange 7 (1943) p. 73, Table 3.

TABLE III. NUMBER OF POPULAR RESPONSES OF 49 SAULTEAUX CHILDREN AT DIFFERENT AGE LEVELS.

| RANK ORDER (ALL SUBJECTS) | CARD | LOCALE (KLOPFER) | C O N T E N T | A G E G R O U P | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|
| | | | | 6-7.11 (7) | 8-10.11 (18) | 11-13.11 (14) | 14-16 (10) | (49) |
| 1. | VIII | D 1 | Animal(s) | 6 | 17 | 12 | 10 | 45 |
| 2. | II | W, D | One or two animals | 1 | 9 | 9 | 9 | 28 |
| 3. | X | D 7 | Animal head with long ears or horns (rabbit) | 5 | 15 | 7 | 6 | 33 |
| 4. | V | W | Winged creature | 2 | 7 | 8 | 5 | 22 |
| 5. | III | W, W | Human figures | 0 | 9 | 6 | 3 | 18 |
| 6. | VIII | D 3 | Tree | 2 | 8 | 7 | 4 | 21 |
| 7. | IX | D 6 | Person | 2 | 4 | 3 | 3 | 12 |
| 8. | IX | D 3 | Animal head | 0 | 3 | 4 | 3 | 10 |
| 9. | I | W | Winged creature | 1 | 00 | 4 | 3 | 8 |
| 10. | X | D 11 | Small mammal | 3 | 4 | 3 | 0 | 10 |
| 11. | X | D 10 | Small mammal | 1 | 4 | 2 | 3 | 10 |
| 12. | VII | D 2 | Animal head | 0 | 2 | 1 | 0 | 3 |
| | | | T O T A L | 23 | 82 | 66 | 49 | 220 |
| | | | A V E R A G E | 3.2 | 4.5 | 4.7 | 4.9 | 4.4 |

Table III is the answer to these questions. It shows the number of times that each one of the twelve most frequent responses in the combined rank order was produced by children at four successive age levels. An inspection of the table shows that all but three of the P responses were given by the youngest children (one of those omitted being "human figures" (Card III) that would hardly be expected), and all but one by the 8 to 10 year-old group; that every P response is to be found at the 11 to 13 year-old level and all but two in the oldest age group.

Although the average number of P responses increases slightly at each age level, this accords with what one might expect, I do not wish to stress this point here since the sample is so small for each age group. From the standpoint of the present discussion it seems to me that the relatively uniform distribution of most of the populars at all age levels is particularly inter-

esting in view of the fact that the frequency level for the children as a whole (one in five) is lower than that of adults (one in four) and also because of the relatively small number of children in each age group, especially at the earliest age level represented.

Another striking fact is the fairly uniform maintainance of at least a semblance of the same rank order at each age level as that which is to be found in the frequencies for all subjects. In particular, the high frequency of the first four responses is noteworthy at all age levels. These universal populars not only seem to transcend cultural differences but, in this case, age differences as well.

From every angle, therefore, the responses that have been chosen as populars for the Saulteaux seem well substantiated. If Table I is now consulted, it will be found that every one of these Saulteaux populars are among those that closely correspond, even if they are not always quite identical with, responses that have been rated P by at least one investigator for some group of European or American subjects. The closest correspondence is with Hertz who scores 91 per cent of them P*, Loosli-Usteri, Schneider and Gardner 58 per cent, Klopfer, Beck and Vernon 50 per cent, and Harrower-Erickson 41 per cent. In other words, none of the responses I have rated P for the Saulteaux are unique for this group of Indians. This is a capital fact from a cross-cultural point of view. Consequently it seems to me that from this standpoint certain basic categories of populars can be recognized already and that such categories should provide the basic framework for systematic comparisons of the correspondences and differences that are found when the popular responses of different cultural groups are examined.

## Categories of "Popular" Responses

Provided that there is an approximate agreement upon a definition of content that is not too narrowly specific and that the same quantitative standard is applied, it would appear that for the purpose of cross-cultural comparisons popular responses fall into three major categories: (1) universal populars, (2) common populars and (3) unique populars.

"Universal" Populars. To this category belong a few responses like Card VIII D 1 "animal(s)," that may be termed "universal" in the sense that they are not only known to occur in a large number of distinct cultural groups but that in these groups they are the most frequently given answers. There is also the expectation that they will assume a similar rank in other groups. Both the occurrence and the high frequency of some of these "universals" is assumed to be a function of the intrinsic properties of the blots themselves. The differential of the so-called "universal" then, would be the constancy of their high frequency in a number of distinctive cultural groups.

Common Populars. These are produced with sufficient frequency to rank as P in different cultural groups but do not attain the high frequency rank of universal populars. In fact, their wide variation in frequency and rank order in the total series of populars in different groups may prove to be

*In a previous article (2, p.204) I said 80 per cent. This figure was based on a criterion of one in six for my combined series. The figure I gave for Beck (50 per cent) happens to be the same.

their most distinctive feature. From a cross-cultural point of view the most important fact to be emphasized is the empirical demonstration of such a category of populars. Most of the Saulteaux populars, for instance, fall into this category if the minimum requirement for a "common" popular is its recognition in at least two distinct cultural groups. On the basis of further data this category could be refined in terms of the actual number of groups in which a common popular is found.

If an incidence of one in five be taken as a criterion the following responses may be taken as samples of common populars that are now known to be shared by an adolescent group of American subjects and by two groups of Indian subjects with different cultural backgrounds.

"Tree" (Card VIII D 3) is a response formerly rated P for white subjects by Beck, but now rejected by him. In the adolescent group of Hertz, however, this same response was given by 65 of her 300 subjects and ranks thirteenth in her panel of populars. For my Saulteaux subjects it was given by 26.4 per cent of adults and 42.8 per cent of the children. Among Navaho children it ranks eighth in frequency, being given by 24.5 per cent of the subjects. On the other hand, it does not appear among the ten most frequent answers of Zuni children.

"Animal's head" (Card IX 3) was given by 77 of the subjects of Hertz and ranks tenth in frequency. No other investigator has rated this response P for white subjects, but it ranks eighth in frequency among both Salteaux adults and children although the percentage of subjects is much lower in the latter group. The same response was given by one-third of the Zuni children and has fourth rank, but it is not to be found among the ten most frequent answers of the Navaho.

Unique Populars. These are characteristic of a single cultural group. By definition they do not occur in any other group. It is obvious, therefore, that only extensive research can fully validate this category. But some tentative examples can be given. To my mind it is a striking fact, for instance, that Card X D 1, whether defined as "spider," "crab" or "crustacean," does not achieve P status among the Saulteaux, Navaho or Zuni, despite the fact that among whites it occurs so frequently that Klopfer, Beck, Hertz, Schneider, Loosli-Usteri, Gardner, etc., all agree upon its P rating. Perhaps those who have only had experience with white subjects have never thought of this response as characteristic or unique in our culture. But on the basis of the present available data it falls into this category. A response of the same category for the Navaho is "animal head" (Card VII D 3) given by 33 per cent of the subjects and sixth in order of frequency. For the Zuni, "animal" (Card X D 13), ninth in rank order and given by 23 per cent of the subjects would be another example. Among the Saulteaux there are no unique populars that meet the criterion of one in five for all subjects so that from a comparative point of view all their populars fall into the first two categories.

As more Rorschach data from subjects with different cultural backgrounds accumulates it will be interesting to discover the relative proportions of popular responses that fall into these three categories in each case and, in particular, the locale, number and content of unique populars, if they occur in significant proportions. Such data may give us important clues to the psychological significance of cultural differences. Moreover, the specific constellation of populars in different groups, when viewed in terms of their relative frequencies, and also in cross-cultural perspective, likewise may furnish us with extremely pertinent data that has direct bearing upon the study of personality and culture.

## Bibliography

1. Beck, Samuel J., Rorschach's Test 1. Basic Processes, New York, 1944.

2. Hallowell, A. Irving, The Rorschach Technique in the Study of Personality and Culture. American Anthropologist, 47: 1945-210, 1945.

3. Harrower-Erickson, M.R. and Steiner, M.E., Large Scale Rorschach Techniques Springfield, Ill., 1945.

4. Hertz, Marguerite R., The "Popular" Response Factor in the Rorschach Scoring. Journal of Psychology 6: 3-31, 1938.

5. Kay, Lillian W. and Vorhaus, Pauline G. Rorschach Reactions in Early Childhood. Part II. Rorschach Research Exchange, 7 (1943) p. 73.

6. Klopfer, Bruno and Kelley, Douglas McG., The Rorschach Technique, New York, World Book Co., 1942.

7. Rickers-Ovsiankina, Maria. Rorschach Scoring Samples, Wheaton College, Norton, Mass.

8. Rorschach, H., Psychodiagnostics. English translation, Berne (Switzerland), H. Huber, 1942.

9. Schneider, Ernst, Psychodiagnostisches Praktikum fur Psychologen und Pädagogen. Eine Einfuhrung in Hermann Rorschachs Formdeutversuch. Leipzig, 1936.

# THE USE OF CONTENT ANALYSIS IN RORSCHACH INTERPRETATION:

## 1. Differential Characteristics of Male Homosexuals.*

Floyd O. Due, Lt.Comdr.,MC,USNR
M. Erik Wright,Lt(jg),H(S),USNR

Research workers in the Rorschach method have tended to neglect the contribution of content implications in diagnostic differentiation. Analysis of content symbolism has not been considered a part of orthodox Rorschach analysis, but has rather been relegated to psychiatric and particularly psychoanalytic deduction(2). To divorce this part of the production on the projective test from its formal characteristics, however, seems an artifact based on tradition rather than any true limitation of the test in this regard. Actually Rorschach workers utilize this element to a considerable extent in diagnostic work.

This study of male homosexuals is the first of a series of papers in which the contribution to psychiatric diagnosis of content analysis of the Rorschach responses will be evaluated. The forty-two homosexual subjects used in this study were brought to the attention of the psychiatrist either by being apprehended in overt homosexuality or by self-referral because of anxieties and situational maladjustment due to the homosexual conflict. The statistical analysis of these Rorschach records will appear in a later paper in which a comparative study of the content of several psychiatric groups will be presented.

A modified Rorschach technique** in which the subject could write down his spontaneous projections and/or select responses from a list of suggestions was used in thirty-eight of the cases, and the remaining four subjects were examined by the standard individual method.

### CONTENT ANALYSIS

#### De-realization

A very characteristic type of response given by male homosexuals is a de-realization of the projection. This is accomplished in various ways:

a) MYTHICAL DISTORTION. For example, (Card I) "Dedalius or Icariussic who tried to fly", "Pinocchio with a long wooden nose." (Card II) "Two medieval magicians - Merlin type". (Card III) "Two little pixies looking at each other. Long curls, long tail. Walt Disney's Fantasia."

---

*Opinions expressed in this paper are those of the writers and do not reflect the views of the Navy Department.

The contribution of C. E. Housman, PhM2c, USNR of time and energy in the collection of the data on which this report is based is acknowledged with sincere appreciation.

**This technique will be amplified in a forthcoming publication.

b) QUALIFICATIONS TOWARD THE ABNORMAL. For example, (Card I) "Half-way like a butterfly; weird shape." (Card III) "Two men in evening clothes. Funny looking fellows."

c) DE-HUMANIZATION. For example, (Card II) "Two figures holding a torch. Could be an ancient statue with arms broken off or head off." (Card III) "Two men.....look like cartoons."

De-realization is seen most frequently in the projection of human figures. This may be considered an expression of the subject's inability to formulate a clearcut perception of his own body image. The uncertainty as to masculininty or femininity leads to a projection of unreal and modified human figures. The inability to project ordinary human beings may also reflect the difficulty which the homosexual has in identifying with normal persons.

Confusion of Sexual Identification

A second important characteristic of the Rorschach performance of homosexuals involves the method of handling the gender of the human projections. There is a confusion and evasiveness with respect to the identification of the gender as seen in the following types of response:

a) DOUBLE IDENTIFICATION. Here both genders are projected onto the same area or homologous areas of the blot. For example, (Card III) "Two women carrying a basket. Two men with high hats bowing."

b) UNCERTAINTY. In this case the subject is unable to decide which is the sex of the projection and may waver back and forth. For example, (Card III) "It could be two men or two women dancing (Inquiry: Could be either.)."

c) EVASIVENESS. In this instance there is a reluctance or inability to project any sexuality onto the human figures. For example, (Card VII) "Some people staring at each other (Inquiry: I'm not sure. You can't tell what they are.)."

The confusion as to sexual identification expressed in these Rorschach responses parallels the behavioral difficulties of the homosexual's life role.

Feminine Identification

Where there is an unequivocal identification of gender, the projection is predominantly feminine in character. There are three main ways in which this feminine identification is expressed:

a) SPECIFICATION OF FEMININE GENDER. For example, (Card II) "Two old women playing peas, porridge, pot." (Card III) "Two women rendering a man's pelvis apart," "Two women dressed as men bowing to each other," (Card V) "Two Indian women wrapped in fur."

b) PROJECTION OF "FEMINIZED" BEHAVIOR. For example, (Card III) "Two men washing," "Two men cooking."

c) PRE-OCCUPATION WITH FEMININE APPAREL. For example, (Card I) "Woman's dress." (Card III) "A red brassiere." (Card IV) "A woman's hat with feathers." (Card VII) "Leg of mutton sleeves." (Card VIII) "Women's corset."

It is notable that male homosexuals show even more preoccupation with this type of response than do women. It is rare to find such preoccupation among non-homosexual males. The utilization of such feminine references is indicative of a conscious or unconscious feminine identification. It is important to realize that such preoccupation does not mean that the individual is interested in the opposite sex as an object for libidinal attachment, but rather that it represents his own inner conception of himself. In some cases, the relative absence of masculine projections and the notable presence of feminine figures may imply not only feminine identification, but also a strong fear of assuming the active male role.

In many homosexuals, the feminine identification results from the over-attachment and dependence on the maternal figure and the failure to develop adequate positive emotional ties with the father. However, there are profound ambivalences toward feminine identification as seen in the homosexual's rejection of women. This tendency is indicated by those homosexuals who caricature the original feminine prototype by their behavior mannerisms. These mannerisms are often over-acted to the point of a parody or a travesty of the original behavior. The Rorschach responses often embody the core of the hostility and distrust of the maternal, feminine figure; for example, the response (Card III) "Two women rendering a man's pelvis apart," may be interpreted to mean that the maternal figure is unconsciously blamed for the castration or sexual alteration of the subject. Thus, the Rorschach responses may be interpreted as confirming the importance of the inter-relationship between the child and his mother as a primary factor in the development of certain types of homosexuality.

Castration and Phallic Symbolism

Responses connoting castration symbolism reflect important etiological factors in the dynamics of certain homosexuals. Such responses often are stated in terms of "cut off" or "broken" appendages, or more subtly as diseased or deformed human figures or organs. For example, (Card I) "Headless angel." (Card II) "Turtle with the important part of his anatomy missing or rather his back bone," "A man with the clap."

Preoccupation with objects suggesting phallic symbolism is another expression of the anxiety focused about the male sexual organ. This often leads to such an emphatic attention to the peninsular areas of the blot that more obvious popular details in solid areas of the blot are disregarded. Examples of phallic symbolism are: (Card V) "Two snakes poised to strike." (Card VI) "Radio towers with flashes of light," "Idol," "Pole sticking up."

The castration and phallic symbolism expresses the concern over sexuality as a fear and uncertainty with regard to the subject's own body, i.e., that he is damaged and that he is not a complete unit within himself.

Sexual and Anatomical Responses

The homosexual group shows a relatively high frequency of sexual organ responses (this is in line with the findings of Bergmann (1) in his Rorschach records of male homosexuals). The same trend occurs in sexually disturbed schizophrenics and in individuals whose inhibitions about sexuality have been markedly lowered, e.g., some people who are undergoing or who have completed psychoanalysis. It is usually the male sex organ which is seen; the female sex organ may be seen alone in Card II. The projection of both male and female sex organs in the same blot occurs occasionally, particularly in Card VI.

The projection of both sex organs may be an expression in some cases of the previously discussed confusion as to sexual identification. Occasionally, other organs of a sexual significance are projected, e.g., breasts, buttocks, anus, etc., which tend to correspond with the specific sexual practices indulged in by the individual.

Besides the projection of sexual organ responses, homosexuals show a much higher incidence of other anatomical and X-ray respones than do normals. However, this heightened interest in anatomy does not serve as a differentiating diagnostic factor since other psychiatric groups show a similar high incidence.

Esoteric Language and Artistic References

The failure to identify with normal people often becomes a positive feeling of being set off as a part of a unique group. There is a natural tendency to seek out others who are in revolt against the established order. Bohemian groups and artists in various fields thus attract many of this type of homosexual to themselves. The tendency toward esoteric and stylized language, the frequent use of artistic references, seem to be expressions on the Rorschach of this "out-group" identification, of this being set apart even in language and interests from the ordinary and commonplace normal. For example (Card II) "An abstract design by Picasso. An interesting objet d'art."

Paranoid Reactions

Clinical practice has repeatedly demonstrated the close relationship between the homosexual conflict and paranoid reactions. The homosexual, uncertain of his social status with others, constantly exposed to disapproving social attitudes, and harboring the anxiety and guilt associated with his inner ambivalences, tends to develop a cautiousness and suspiciousness about people which is a basic part of the paranoid reaction. Many of the content responses, typical of the paranoid, are to be found in the homosexual Rorschach records. For example, (Card I) "Diabolical face, eyes, mask."

## ILLUSTRATIVE HOMOSEXUAL RECORDS

The two Rorschach records which follow illustrate many of the content patterns which characterize homosexual records. It must be noted that no single record is likely to show all the content factors which the analysis of the total series of cases revealed. The clinical evidence on these two cases completely substantiated the diagnosis of homosexuality.

Case T.F.3, age 26 (Individual Rorschach, with inquiry in parenthesis).

| Responses | Content Implication |
|---|---|
| Card I | |
| 1. Looks like two donkies. This way like a mirrored reflection. (Here's very definitely a figure with arms upraised.) | |
| 2. Center here - a scarab device. | |
| 3. Here is a bat. Definite. | |

| Responses | Content Implication |
|---|---|
| 4. An acorn here. | |
| 5. This section might be Dedalius or Icarius who tried to fly. | Mythical distortion. |
| Card II | |
| 1. Those are two medieval magicians- Merlin type, days of King Arthur. Seem to have hooved hands. (Here is the glow from the fire - a sorcerer's idea. Black cloaks and red hats.) | Mythical distortion. Castration symbolism. |
| 2. Here at the top, the red blots seem to be distorted dream faces. (The type of people that bother you while asleep. Not pleasant at all.) | Qualifications toward the abnormal. |
| 3. The two black spots remind me just a little bit of the map of Australia. | |
| Card III | |
| 1. Very definitely an African motif. These two figures. Irons and kettles down here. (Two native women. I say women because they have these two firm breasts. Might be carved in stone.) | Evasion of gender. Specification of feminine gender. Organs of sexual significance. De-humanization. |
| 2. Sloths hanging down. (Monkies.) | |
| 3. Red spots in the center seem to mean nothing but go along with the motif. (Should be higher - from a sense of the decorative). | Artistic references. |
| Card IV | |
| 1. A skin laid out as in a rug. Funny part of it is the head can be either at the top or bottom of the picture. | Projection of inner uncertainty regarding body image. |
| 2. Without this, (lower peninsular detail) it looks like a comedy. A big boogie man leaving-but this little thing destroys it. | Mythical distortion. |
| 3. There is a prehistoric face in this section up here. (Vague, yet the forehead is the most prominent part. Anthropoid). | Qualifications toward the abnormal. |
| Card V | |
| 1. This of course immediately is either a large bat or a small insect with wings out. | |
| 2. This might be a character with wings. A person impersonating a bat with wings. A Disney character. | Qualifications toward the abnormal. |

| Responses | Content Implication |
|---|---|
| 3. Each side resembles a Greek mask - a Bacchus face. | Esoteric language. |
| Card VI | |
| 1. This upper part looks like a South-western Indian device with feathers on it. (Weird things with painted feathers.) | Phallic symbolism |
| 2. Lower portion like a hide. | |
| 3. Two chipmunks facing together. | |
| Card VII | |
| 1. Two absurd comic strip characters facing each other balanced on the rocks. (Small bodies like Toonerville folks. All head and no body. Heads are always quite wild.) | Qualifications toward the abnormal. De-humanization. |
| 2. By a wild stretch of the imagination might be rabbits, but in a comic strip sense - phantasy. | |
| Card VIII | |
| 1. At first glance a memorial device (whole blot) with these two pink devices. (Both color and shape.) | |
| 2. Center looks like a plate in the medical book. I guess the coloring does that. | Anatomical responses. |
| 3. These two parts might be flags. (No color in them. Like crossed flags. Just being one color). | |
| 4. This bottom has some pelvic significance. I don't know why. (Can't tell whether it's the pink or the orange.) | Sexual responses. |
| Card IX | |
| 1. The orange is like a sea horses. | |
| 2. The center portion is pelvis-like. I don't know why. | Sexual responses. |
| 3. The bottom is like that candy floss you buy at fairs. (Mainly color and general round shape. Sort of a swirl.) | |
| 4. These could be eyes (center white). | Paranoid reaction. |
| 5. Here, that funny device - medieval persons with funny caps stirring over some potions. | Evasion of gender. |

| Responses | Content Implication |
|---|---|
| 6. Right here are satyrs - Bacchus. Red and nose, spirit of wine. Have cloven hooves and a tail. (Close-cropped curly hair. Devilish laugh on face. Think of pink cheeks and noses.) | Mythical distortion. Castration symbolism. Esoteric language. |
| Card X | |
| 1. This has a Chinese motif - an Oriental print. (Color.) | |
| 2. Or a costume sketch by Vertas in Esquire or for a ballet sketch. (Colors and the vagueness. Just a rapid water color such as they often do us in ballets.) | Artistic references. |
| 3. These two spider-like blue things don't seem to belong, yet complete the pattern as a whole. | Qualifications toward the abnormal. |
| 4. These are two little "wierdies" out of the grass, somewhere indistinct. (Little wood animals, things that come out at odd moments - look quick and run away again.) | Mythical distortion. |
| 5. This looks like the face of a cricket or grasshopper. | |
| 6. These blue things look like spiders. Yet have crab's claws on them. Lobster claw. Adagio dance. | Qualifications toward the abnormal. |
| 7. Here are two poodle dogs. (Nose in air. Much hair in front. Hind legs stretched out in back.) | |
| 8. This as a whole looks like the entrance to a palace that might appear in a Grimm's fairy tale. | |

Case H91, age 18 (Modified Group Rorschach).

| Responses | Content Implication |
|---|---|
| Card I | |
| 1. A woman without a head. | Specification of feminine gender. |
| 2. A set of gargoyles on each side. | Castration symbolism. Mythical distortion. De-humanization. |
| 3. Two sets of eyes. | Paranoid reaction. |

| Responses | Content Implication |
|---|---|
| Card II | |
| 1. Two rabbits. | |
| 2. A pair of witches dancing. | Mythical distortion. |
| Card III | |
| 1. Two women pulling something apart. | Specification of feminine gender. |
| 2. A pot. | |
| 3. A woman's brassiere in red. | Pre-occupation with feminine apparel. |
| Card IV | |
| 1. An odd creature ape-like. | Qualifications toward the abnormal. |
| Card V | |
| 1. A bat flying. | |
| 2. A pair of pliers. | |
| 3. A pair of men's faces. | |
| Card VI | |
| 1. A totem pole. | Phallic symbolism. |
| 2. A butterfly. | |
| Card VII | |
| 1. A pair of women's heads. | Specification of feminine gender. |
| 2. A pair of cleavers. | |
| 3. An opened book. | |
| 4. A pair of dog's heads. | |
| 5. A butterfly. | |
| Card VIII | |
| 1. A mountain | Specification of feminine gender. |
| 2. Part of a woman. | |
| 3. A valentine heart. | |
| Card IX | |
| 1. A pair of witches playing violins. | Mythical distortion. |
| 2. A pair of pig's heads. | |

| Responses | Content Implication |
|---|---|
| Card X | |
| 1. A Fourth of July fireworks. | |
| 2. A pair of women in formal clothes dancing. | Specification of feminine gender. |

The foregoing discussion has illustrated how content analysis can be used to differentiate the male homosexual from other diagnostic categories. It is our experience that the traditional Rorschach determinants have failed to provide a basis for such discrimination. This is to be expected in view of the fact that male homosexuals will be found in such psychiatric categories as Schizoid Personalities, Psychopaths, and relatively normal personalities. We do not imply that Rorschach determinants will not give a very important insight into the personality organization of any specific homosexual individual, but rather, that the content associations as projected into the blot can go much further in delineating this particular psychopathological deviation. Careful evaluation of the symbolism of such associations also yields significant hypotheses as to the psychodynamics of homosexuality in general.

Content analysis serves not only to identify certain types of overt homosexuals, but it also helps to bring out the importance of homosexual conflict in other diagnostic groups. The records of certain paranoid personalities, for example when studied from the content aspect, tend to reveal the dynamic role which the homosexual conflict plays in the psychopathology of this condition.

## BIBLIOGRAPHY

1. Bergmann, M. S., Homosexualtiy on the Rorschach Test. Bulletin of the Menninger Clinic, 9:78-84, May, 1945.

2. Hertz, M. R., Review of book, Large Scale Rorschach Techniques by Harrower-Erickson, M. R., and Steiner, M. E. Rorschach Res. Exch., 9:46-53. March, 1945.

# GROUP RORSCHACH TESTING IN A VOCATIONAL HIGH SCHOOL

Theodora M. Abel, Ph. D.*

## Introduction

An exploratory investigation with the group Rorschach was made of first and third term girls in a vocational high school in order to find out in what ways these subjects responded to the test and to what extent the test differentiated younger and older girls, those of higher and lower IQ, and those presenting deviant and non-deviant patterns in terms of behavior in school and responses to the blots.

The range of intelligence in the school as a whole is somewhat below normal since girls of higher intelligence levels usually choose to go to academic and commercial high schools in New York City. The chronological ages and intelligence ratings of the subjects tested were as follows:

| Term in H.S. | No. | C.A. in mos. Range | Ave. | P.E. | I.Q. on Henmon-Nelson Adv. Range | Ave. | P.E. |
|---|---|---|---|---|---|---|---|
| First | 58 | 159-200 | 178.2 | 7.7 | 64-121 | 89.7 | 8.5 |
| Third | 162 | 170-216 | 187.9 | 5.6 | 64-114 | 87.9 | 7.8 |

The difference between the average IQ scores of the first and third terms is not reliable statistically but the difference in chronological age is reliable. The actual difference between the average chronological age of the two groups is 9.73 months, giving a P.E. difference of 1.12 and a critical ratio of 8.7.

About 80 per cent of the girls were learning the fundamentals of both dressmaking and garment operating with a small number taking up beauty culture, novelty or cafeteria trades. Many girls, however, were not pursuing the course of study that was their first choice. About 55 per cent of the girls in the School are of Italian parentage. We shall at a later time discuss Rorschach results in relation to trade training and preferences and in relation to national and racial groups.

## Testing Procedure

Six weeks after the beginning of the school term, we gave the Rorschach test to the 58 first term girls and the 162 third term girls. Ten to twenty girls were examined at a time, and the general conditions for group administration, including a written inquiry, as described by Sender (9) were employed. The only modifications made were in simplification of the wording and in time of exposure for the slides. For example, the word answer was substituted for response, shown for projected, and the word fun for the phrase interesting experience. Instead of a three minutes exposure time for each slide, Sender suggested the following times as being more feasible: Two minutes for cards I, II, III, V, VII, IX; two and a half minutes for cards IV

*Senior Psychologist, Letchworth Village, Thiells, New York

and VI; and three minutes for cards VIII and X.* An assistant presented the slides so that the examiner was free to circulate about the room and assist individual girls with the inquiry procedure, particularly with the technique of indicating locations. Two examiners went over all the records and agreed on the scoring.**

Results

a. Comparisons of first and third term students.

The third term girls give a higher number of responses to the blots than do the first term students. The average total R for the former is 22.1±4.5 while for the latter it is 19.09±3.9. This difference in average between the two groups is 3.03, reliable statistically (P.E. difference, .625; critical ratio, 4.84). The greater frequency of responses given by the higher term girls is related to the fact that they give more D than W responses, as can be seen from the following:

| | Location | |
|---|---|---|
| Term | Ave. No. W. | Ave. No. D. |
| First | 6.9±1.99 | 11.2±3.5 |
| Third | 6.8±2.2 | 13.8±3.4 |

The actual difference between the two averages for D, 2.57, is reliable statistically (P.E. difference, .534; critical ratio, 4.8).

In a study of three hundred adolescents with an age range of 12.6 through 16.5, Hertz (3) found the average R to be 27.05, with a W of 6.78, and a D of 14.08. Her results cannot, however, be directly compared with ours since she used the individual method of presentation, included members of both sexes, and had subjects of normal and superior intelligence levels. But we might mention a few points of interest in connection with her study. Hertz' adolescent group was very similar in chronological age, range and average, to our first term group. The frequency of W responses obtained by Hertz was almost identical with the frequencies of our two groups, while her D frequency was more comparable with our third term group.

The Rorschach determinants used by our girls appear in the following table according to the percentage of total responses.

| Term | M | FM | m | k | K | FK | F | Fc | c | C' | FC | CF | C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| First | 6.3 | 11.33 | .91 | .11 | 1.46 | 1.92 | 65.81 | 1.13 | 0 | .73 | 5.03 | 3.84 | .73 |
| Third | 8.2 | 7.97 | .66 | .09 | 1.89 | 2.14 | 65.16 | 3.17 | .34 | .69 | 5.06 | 4.06 | .57 |

*Thanks are due Miss Sadie Sender for the time she took and advice she gave in working out the procedure. We are also grateful to Dr. Molly Harrower for helpful suggestions.

**We wish to thank Dr. Renata Calabresi for her assistance in scoring.

The only differences worth considering lie in the M, FM and Fc categories. The third term girls give more M than do the first term: The average number of M for the first term is 1.19 (S.D. 1.14), while for the third term it is 1.77 (S.D. 1.39). This difference in average of .58 is reliable statistically (S.D. difference, .185; critical ratio, 3.1). In Hertz' study her adolescents gave an average M of 2.62 (S.D. 3.71). A higher intelligence level and a different manner of administration might well have made for the greater frequency of M. Forty-five per cent of the third term girls gave Fc responses while only thirty-one per cent of the first term do so. In the association between frequency of Fc responses and term in high school, chi square is 8.243 with a P of less than .01. The difference in FM frequency between the groups, however, is not a reliable one. The average number of FM for the first term is 2.1 (S.D. 1.88), while for the third term it is 1.72 (S.D. 1.7). These averages yield an actual difference of .3, an S.D. difference of .281, and a critical ratio of only 1.3.

Thus we see that the third term girls respond with somewhat richer fantasy and creative experience and reveal a greater degree of sensitivity than do the first term girls. Hertz found M increasing with age in a study she carried out on seventy-six adolescents tested at twelve and later at fifteen years (4). Hertz reports that with the increased introversiveness of the fifteen year olds appeared a decrease in lability and excitability (C). Our two groups who averaged about a year apart chronologically showed no reliable difference in color frequencies. But our subjects were not as young as Hertz' twelve year olds, nor were they as differentiated according to age; there was some overlapping of chronological age between our first and third term girls (25.5% of the first term exceed the median for the third term). With greater age difference and with individual testing we might well have obtained a color frequency difference. It is of interest, however, that in spite of the age overlap of our groups we obtained a reliable M difference, even with the group Rorschach method.

One-fourth of the first term girls (25.8%) and one-fifth of the third term girls (19.2%) gave no color responses at all. These high percentages may be attributed partly to the fact that the examiners were very strict in not scoring color determinants except in clear-cut instances. Individual inquiries would no doubt have picked up a larger number of these determinants.

On the other hand, the number of rejections of slides was surprisingly small. In the first term, out of five hundred and eighty possible chances for rejection, there were twenty rejections (3.4%), and in the third term, out of sixteen hundred chances for rejection there were only twenty-nine (1.8%). Hertzman (6) reported one or more rejections of slides among 26 per cent of a group of one hundred college students given the group Rorschach. This difference in the frequency of rejection between superior students and our less intelligent girls is surprising. We might expect a greater preponderance of neurotic color and shading shock among superior and somewhat older individuals, but we would expect less intelligent subjects to find difficulty in interpreting blots. Not one of our girls rejected slides I, II, III, or VIII; no girl in the third term rejected slides V or X. In spite of being told that the nature of the test was not coercive but fun and novel, the girls took the situation very seriously, feeling that they were being examined for mental ability. Any girl who might reject a slide in an individual situation was surrounded by girls not rejecting but writing responses and so a pattern was set for doing something about each slide. The school set-up, as is true in the majority of public high schools, is very striot, emphasis being laid on deportment, obedience and adherence to rules and regu-

lations.

The content frequencies of response for our two groups are given in the following table in percentages. As a matter of interest we have included in our table the per cent content frequencies obtained by Harrower in a study with the group Rorschach of adults of superior intelligence and college students (2).

| | 1st Term N=58 | 3rd Term N=162 | Harrower College Students N=224 | Harrower Superior adults N=34 |
|---|---|---|---|---|
| At. | 3.84 | 2.72 | 10.6 | 5.8 |
| A | 49.10 | 43.18 | 33 | 25 |
| Ad | 5.39 | 4.20 | 5 | 9 |
| A obj. | 1.19 | 1.94 | 3 | 4 |
| Arch. | 2.01 | 1.91 | 2 | 3 |
| Color des. | .18 | .26 | .2 | 0 |
| Fire | .73 | .69 | 1 | .9 |
| H | 11.52 | 13.29 | 13 | 10 |
| Hd | 4.30 | 4.92 | 4 | 8 |
| Geog. | 1.10 | 1.29 | 2 | 4 |
| N+Pl | 4.20 | 5.46 | 8 | 9 |
| Obj. | 12.61 | 15.69 | 15 | 20 |
| X-ray | 0 | .06 | .7 | .5 |
| Misc. | .45 | .37 | .1 | .1 |
| Water, Clouds | .73 | .34 | Not used | |
| Food | 1.55 | 1.94 | " | |
| Design | 1.10 | 1.74 | " | |
| Art | Not used | | .5 | .3 |
| Sex | " | | .2 | .1 |
| Signs and symbols | " | | .1 | .2 |
| Symbolism | " | | .2 | 0 |

As can be seen from the table, the third term girls reduce the A per cent responses slightly in favor of H responses. This trend from A to H is what we might expect as age increases, but the difference is not reliable statistically. The A percentages are higher among our girls than are those presented by Harrower but there is little difference in the H per cent. This is of interest in view of the marked difference in intelligence between her groups and ours. The difference lies in the frequencies yielded in other categories such as anatomy. Both immaturity and low IQ would account for the more limited types of responses of our girls. Among her three hundred adolescents Hertz obtained an A+Ad per cent frequency of 54.13. Our A+Ad responses for the first term were 54.3 per cent of the total responses, and for our third term, 47.4 per cent. Thus the equivalent age groups, regardless of IQ level or method of taking the Rorschach, show very similar frequencies of A responses.

There is little difference between the frequencies of P responses given by our first and third term girls: first term: average P score, 4.14±.91; third term, average P score, 4.29±.98. Hertzman found an average of 5.5 for P responses among his college students (group method).

b. Comparison of girls of higher and lower I.Q.

We next compared responses of girls of higher and lower IQ. We selected girls with an IQ on the Henmon-Nelson of 95 or over, and those with an IQ under 80. We limited these two groups to girls of the third term only, so as not to add the variables of term difference in making comparisons. To increase the consistency of these small groups we also ruled out the few Negro subjects, since studies have shown that Negroes may respond to the Rorschach blots somewhat differently from white people (1,7). We studied a total of thirty-eight girls with IQ's below 80, and forty girls with IQ's of 95 or above. Unfortunately, the age levels of our lower and higher IQ groups were not comparable. As we might expect, girls of higher IQ proceed through the school curriculum more rapidly than do those of lower IQ. The higher group has an average chronological age (in months) of 182.63±5.09, while the less intelligent group has an average chronological age of 191.18±3.99. This difference in actual average (8.55) is reliable statistically (P.E. difference, 1.03, critical ratio, 8.3).

As might be expected, the girls of higher mental rating react to the cards with a larger number of responses. The low IQ group (range 64-79) gives an average of 19.95±2.9 responses, while the higher IQ group (range 95-114) has an average of 24.5±5.37 answers. This actual difference in average of 4.55 is reliable statistically since the P.E. difference is .98, and the critical ratio is 4.7. As a group, the higher one is more variable in number of responses than the lower one. Using the formula $\frac{V=S.D. \times 100}{Ave.}$ we find the low IQ group 60 per cent as variable as the high group. This is an indication, it would seem, that the test is more adequate for revealing individual differences in patterns of response among subjects whose IQ is at least normal.

The frequency of responses of the girls of higher IQ approachs the average of 27 found by Hertz among three hundred adolescents, and almost equals the 25.1 average of Hertzman's college students. Lindner (8) gave group Rorschach's to one hundred adults of normal range intelligence and obtained an average R of only 20.4 (S.D. 10.5), an average somewhat less than that of our girls of normal intelligence. Thirty-five per cent of his subjects had psychopathic tendencies, however, a factor which might have influenced the R frequency.

The difference in the frequency of responses obtained by us lies in a higher W among the more intelligent girls, as can be seen by the following figures which indicate a reliable difference in W average:

| | No | Ave. W | Actual diff. | P.E. diff. | C.R. |
|---|---|---|---|---|---|
| Low IQ | 38 | 5.95±1.68 | 2.15 | .458 | 4.7 |
| High IQ | 40 | 8.10±2.33 | | | |

The difference in frequency of D between our two groups is not reliable (low IQ average D, 12.95±3.11; high IQ average D, 14.45±3.96; actual difference, 1.5; P.E. difference, .806; Critical ratio, 1.9).

The incidents of Rorschach determinants in the groups of lower and higher IQ is given in percentages in the following table.

| | Per cent of Determinants | |
|---|---|---|
| | High IQ R=962 | Low IQ R=743 |
| M | 8.32 | 7.13 |
| FM | 8.00 | 9.29 |
| m | 1.48 | .27 |
| k | 0 | .13 |
| KF | 1.98 | 2.02 |
| FK | 3.74 | 1.75 |
| F | 64.03 | 66.49 |
| Fc | 3.22 | 2.29 |
| cF | .21 | .54 |
| C' | .52 | .54 |
| FC | 4.26 | 4.44 |
| CF | 3.74 | 4.17 |
| C | .52 | .94 |

There are no differences in the frequency of color responses for the girls of higher and lower IQ, nor in frequency of types of color determinants. The difference lies in the human movement and shading responses. We obtained a composite score by adding the number of M and shading responses (M+k+FK+KF+Fc+cF) for each girl. For the girls of higher IQ the score is 160; for the girls of lower IQ, it is 97. Using the analysis of variance we obtained an F of 8.854, which is reliable for a P of less than .01 (an F of only 7.01 being needed for this purpose). Thus we find greater inner creativeness as well as sensitivity to feeling experiences on the part of the group of higher IQ.

As already noted, we found both M and some shading (Fc) differences between the first and third term girls whose IQ ratings were the same but who differed in age. In the present comparison we find that the younger girls, who are more intelligent, give more M and shading responses than do the older girls.

The lower and higher intelligence groups yielded the following percentage frequencies for content categories:

| | High IQ R-962 | Low IQ R-743 |
|---|---|---|
| At. | 1.65 | 3.1 |
| A | 42.52 | 48.18 |
| Ad | 4.98 | 2.83 |
| A obj. | .94 | 2.02 |
| Arch. | 2.81 | 2.02 |
| Color des. | .31 | .40 |
| Fire | .42 | .40 |
| H | 12.31 | 11.71 |
| Hd | 5.2 | 3.36 |
| Geog. | .94 | 2.02 |
| N+Pl | 5.93 | 4.46 |
| Obj | 17.26 | 14.81 |
| X-ray | 0 | .16 |
| Misc. | .10 | .62 |
| Water, Clouds | 2.07 | 1.75 |
| Food | 1.35 | 1.62 |
| Design | .21 | .54 |

There is a higher percentage of H responses and a lower percentage of A responses in the higher IQ group as there was in the older group of third term girls. This difference, as in the earlier comparison, is only a trend and is not statistically reliable.

The number of responses in the more usual A and H categories as compared with responses in all other categories can be seen from the following central tendencies and reliability measures:

| Category | Group | Ave. No. | Actual diff. | P.E. diff. | C.R. |
|---|---|---|---|---|---|
| A+H | High IQ | 17.5±3.29 | 4.2 | .64 | 6.5 |
| | Low IQ | 13.3±2.29 | | | |
| All categories not A & H | High IQ | 8.47±3.08 | 1.42 | .58 | 2.4 |
| | Low IQ | 7.05±1.95 | | | |

These results suggest that the greater number of responses of the more intelligent girls is related to a greater frequency of the more usual animal and human categories rather than of other more individual or original responses.

The higher IQ group also gives a somewhat greater number of P responses than does the lower group (high IQ average, P=4.85±.93; low IQ average, P=4.32±1.04. In the association between P frequency and intelligence level $x^2=6.2668$, $P=< .02$.)

c. School behavior and the Rorschach.

In the fall of 1944, twelve girls, who had taken the Rorschach test the previous spring, were referred to the Guidance Department since they were presenting serious difficulties of adjustment in school, including truancy, aggressiveness and incorrigibility. We paired each of these twelve girls with another girl who had taken the Rorschach but who had never been considered a behavior problem in school. This matching of pairs was done for age within four months, and for IQ on the Henmon-Nelson within two points. We then compared Rorschach patterns of the two groups, calling the groups Behavior and Control. We found no differences in total R; the Behavior group gave 213 responses in all, the Control group, 276. This difference is not significant, however, if the method of analysis of variance is used. Nor is there a difference in W and D frequencies. The Behavior group gives more M and less FM than the Control group (M 28 and 23, FM 19 and 27) but these differences are not significant. There is a reliable difference between the two groups, however, in the use of chromatic, achromatic and texture determinants. The Behavior group is emotionally labile and more stimulated and disturbed by external environmental factors than is the Control group of girls. We added the C, c and C' responses for each group and found by the analysis of variance of these summated scores (Fc+cF+FC+CF+C+C') that the F is 4.577. An F of only 4.3 is needed for significance with a P of less than .05.

In a study of adjusted and maladjusted girls in a training school, Hertz selected nine in each group who were matched for IQ (range 85-115) and

compared their individual Rorschach scores (5). She did not obtain reliable differences but did find trends in differentiating modes of response. The Student Council, or adjusted girls, gave more responses, more M and more FC. The girls who could not be brought into line in the cottage-living gave more CF and more shading answers (as well as m). Our Behavior group gave slightly more M (28 responses) than did our Control group (23 responses) but, as we said before, this difference is not significant. Both our groups gave somewhat more CF than FC responses. Our range of IQ was 77-98, our testing method was group rather than individual, and our control group was not selected in terms of adjustment as were Hertz' Council girls so our results do not bear direct comparison with hers. All we can say in our case is that girls with behavior disturbances severe enough to be brought before a guidance department do give responses to the Rorschach, in terms of reactivity to color and texture, more pronounced than do adjusted girls.

d. Deviant Rorschach patterns.

In going over the Rorschach scores, we selected a group of twenty-seven girls from the third term whose pattern of response seemed to us to be markedly deviant from a normal pattern, such as no M but many color responses, preponderance of CF over FC, C responses, a heavy weighting of C', more W than D, with other factors out of line also (color and shading), and in two instances more M than W. Cases of constriction were not included as it was not always clear from the record whether we dealt with real constriction or with apparent constriction due to lack of cooperation.

The twenty-seven girls showing emotional disturbance of some kind on the record were fairly representative of the third term girls in terms of IQ (deviant girls' IQ range, 66-106; average, 88.8±7.67; total third term girls' IQ range, 64-114; average, 87.9±7.8).

The school records of these deviant cases were reviewed at the close of the third term in order to find out to what extent they revealed difficulties of one kind or another in school adjustment. The following information was obtained concerning the twenty-seven girls:

| | No. | Per cent |
|---|---|---|
| a. Well mannered-good-conscientious | 6 | 22 |
| b. Very poor health-frequent absence | 3 | 11 |
| c. Truant and bad behavior when in school | 7 | |
| d. Unhappy-resentful of school situation | 4 | |
| e. Nervous (overtalkative, stuttering, hysterical) | 2 | 67 |
| f. Shiftless, lacking in initiative-needs prodding, shows no interest | 4 | |
| g. Withdrawn, depressed | 1 | |

Thus we see that 22 per cent of these girls were not rated by teachers as being difficult or showing personality difficulties. The three health problems were not reported by the teachers as showing personality difficulties but were reported as failing in their work. Absence, concern over health and

constant attendance required at medical clinics, as well as school failure must certainly have created some emotional disturbance in these girls. The remaining 67 per cent of the cases were reported by teachers as being behavior problems and as showing some type of personality maladjustment in the school situation. If we include the health cases we see that 78 per cent of the Rorschach deviants presented some type of difficulty in school sufficient to warrant individual guidance and treatment. Perhaps among the 22 per cent who were good and conscientious workers there were girls who were well behaved at a sacrifice, that is, they had emotional difficulties (as indicated by their Rorschach records) but somehow they held themselves together. A follow-up of these girls would be of interest to see if they could maintain balance through their school careers.

In order to point out more objectively that we were dealing with a group of girls showing deviant Rorschach patterns, we compared the results of the Rorschach scores for these girls, whom we shall refer to as the Deviant group, with the Rorschach scores for one of the regular third term groups. These girls were taking garment operating and were placed in academic classes together because as a group they were considered of fair or average ability, neither very dull nor very bright (from the point of view of the teachers). This group (whom we shall refer to as the Normal group) consisted of thirty-two girls who were comparable to a fair sampling of the third term as a whole. The IQ range for these thirty-two girls was 71-102 (average IQ 86.5$\pm$5.95). Thus the IQ scores for this group are comparable to those of the Deviant group (average IQ 88.8$\pm$7.67); the actual difference of 2.32 points between the two groups is not reliable statistically (P.E. difference, 1.89; critical ratio, 1.23).

The Normal and Deviant groups do not differ in total number of responses nor in the use of D for location of responses, but they do differ in the frequency of W responses. The Deviant group gives an average W of 8.6$\pm$2.87, while the average W for the Normal group is 6.03$\pm$1.84. By the method of variance analysis, statistical reliability is indicated by the fact that the F value for the W scores of the two groups is 7.17 with a P of $<$ .01. There is no reliable difference in M frequencies between the two groups. But there is a marked difference between the groups in the incidence of less controlled texture, color and achromatic determinants as well as of the m determinant. If we add together the m, k, KF, cF, C', CF and C scores we find a total of fifty-nine for the Normal group and of ninety-six for the Deviant group. If we use the method of variance analysis on the summated score for each subject we obtain an F value of 12.51 with a P of $<$ .01.

The Deviant group also gives more varied content of response than does the Normal group. The Deviant group has 269 responses in categories other than A and H, while the Normal group yields 224 responses in these categories (also the Normal group has five more subjects than the Deviant group). If we use the summated scores for all content exclusive of A or H for each subject and employ the variance method we obtain an F of 7.55; an F of only 7.17 is needed to insure a P of $<$ .01. It is evident that our selection of girls for the Deviat group, based primarily on judgment of the examiner rather than on rigid numerical evidence, was adequate from the statistical point of view. The scores for the Deviant group prove to be markedly different from those of an unselected group of girls. The differences lie primarily in W frequency, in less controlled shading and color responses, and in variety of content of response.

Summary and Conclusion

In the present study of the group Rorschach among adolescent girls of the first and third terms in a vocational high school, we have found differences in the Rorschach records of the two groups. The differences lie mainly in frequency of response, the incidence of large detail answers, of human movement, and texture (Fc) responses. There is also some increase of human content and decrease of animal content in the third as compared with the first term group. Since the two groups are comparable in intelligence level and in national and racial backgrounds, the differences obtained on the Rorschach can be largely accounted for on the basis of chronological age difference.

When we selected small groups of the third term differentiated markedly in IQ level (one group with IQ 95 or over, the other with IQ below 80), we found again considerable divergence in Rorschach responses. The more intelligent girls gave a higher number of total responses, more whole answers, more human movement and shading, more human and less animal content. In general, we can say that increase in IQ, as increase in age, among our girls brings about similar changes in modes and types of response to the Rorschach slides. There is some difference, however, between the influences of age and of IQ. Increase of age made for more concrete answers in terms of large details, while increase in IQ brought about a greater number of organized responses (W). Increase in IQ again produced greater sensitivity to all kinds of shading and texture whereas increase in age alone only increased texture responses (Fc).

The most important point, however, is that age was not equivalent in our groups of higher and lower IQ. The higher IQ group was younger chronologically than the other group. Thus, it would seem that intelligence plays an even greater role than age in producing changes in the Rorschach records, and counteracts any influence that the increase in age alone might have in making responses expansive and flexible. Of course, we are talking here about group tendencies, not individual cases.

The group Rorschach technique also differentiated a group of girls referred to the Guidance Department because of severe maladjustment in school, from a group of girls showing no behavior problems. These two groups were matched for IQ and chronological age. The Rorschach differentiation lay in the texture, color and achromatic determinants, the Behavior group giving a much higher frequency in these respects than the Control group.

Our final problem had to do with selection of girls for study who showed a markedly deviant Rorschach pattern (as judged by us). We first found out how well these girls were able to get along in school at the end of the third term. We discovered that among twenty-seven girls showing these deviant Rorschach records, only six, or 22 per cent, were reported by their teachers as being "good, well mannered and conscientious." Three other girls were failing in school work due to ill health which necessitated frequent absences, and visits to medical clinics. All the other girls were reported by their teachers as evincing some forms of maladjustment included under the descriptions, "truant, resentful, nervous, shiftless or depressed."

In order to be more specific and objective about just what comprised a deviant pattern of response to the Rorschach slides, we compared the responses of these twenty-seven girls, whom we had judged to have deviant patterns, with the responses of one of the regular third term school groups

(thirty-two girls). The regular or Normal group and the Deviant group were comparable in IQ range and average. The Deviant group gave no more responses than the Normal group but did give a higher W frequency. The Deviant group revealed also a greater number of the less controlled texture, color and achromatic determinants than the Normal group.

As far as possible, we compared our results with those of other investigators who worked with adolescents and with the group Rorschach. Direct comparisons have been difficult because of different conditions under which the Rorschach was given, and because of varying selections of subjects in terms of chronological age, intelligence level and type of maladjustment or adjustment to environmental situations. In general, we can say that our results among subjects of somewhat lower than average intelligence did not differ markedly from those of other investigators whose subjects were considerably more intelligent than ours.

In conclusion, we think we are justified in saying from the results of the present study that the group Rorschach technique can be used among adolescents whose IQ range is somewhat below normal, not only as a research tool but as a screening device to select girls who may need individual guidance and therapy.

## BIBLIOGRAPHY

1. Abel, T. M., Piotrowski, A., and Stone, G.: Responses of Negro and white morons to the Rorschach Test. Amer. Jour. Ment. Def., 1944, 48, 3, 253-257.

2. Harrower-Erickson, M. and Steiner, M. E.: Large scale Rorschach techniques. Charles C. Thomas, Springfield, Ill., pp. 419.

3. Hertz, M.: Rorschach norms for an adolescent age group. Child Develop., 1935, 6, 69-76.

4. Hertz, M.: Personality patterns in adolescence as portrayed by the Rorschach Ink-blot method. I. Themovement factor. Jour. Genet. Psychol., 1942, 27, 119-188. II. The color factors. Ibid., 1943, 28, 3-62.

5. Hertz, H.: A Rorschach comparison between best and least adjusted girls in a training school. Rorsch. Res. Exch., 1939, 3, 134-150.

6. Hertzman, M.: A comparison of the individual and group Rorschach tests. Rorsch. Res. Exch., 1942, 6, 89-108.

7. Hunter, M.: Responses of comparable white and Negro adults to the Rorschach test. Jour. Psychol., 1937, 3, 173-182.

8. Lindner, R. M.: A further contribution to the group Rorschach. Rorsch. Res. Exch., 1943, 7, 2-15.

9. Sender, S.: The influence of variations in Rorschach group method administration upon the scorability of the records. Rorsch. Res. Exch., 1943, 7, 2, 67-69.

# EXPERIMENTAL PSYCHOLOGICAL DIAGNOSIS OF MILD FORMS OF SCHIZOPHRENIA

Zygmunt A. Piotrowski, Ph. D.*

1. RORSCHACH ON DIAGNOSIS. Rorschach stated emphatically that "it is to be understood that the test is primarily an aid to clinical diagnosis" (17:121). At the same time he made it equally emphatic that "it is impossible to furnish instructions on how to reach a diagnosis---nor is it possible to furnish any simple table for this purpose" (17:122). Both of these statements, made a quarter of a century ago, have been confirmed in the sense that the Rorschach method is being used mainly as an experimental aid in neuropsychiatric diagnosis, and that no exact diagnostic procedure has been offered that would apply to all cases with an equally high degree of validity. The existing criteria are helpful but not in all cases. At best, they function like many tests in biology or medicine: they are significant only when they appear in a Rorschach record, but their absence does not necessarily imply that a specific neuropsychiatric disease is not present. Benjamin's 50 "blind" Rorschach diagnoses agreed in 98 per cent of cases with the clinical discharge diagnoses, but the procedure which led to this remarkable result was not published. [3] One can surmise that it would have been a formidable task to publish the diagnostic procedure. Rorschach himself virtually asserted that everyone must develop the necessary diagnostic skill for himself when he said: "To be able to draw conclusions from the scoring of so large a number of factors (as must be considered in making valid diagnoses) requires a great deal of practice in psychological reasoning and a great deal of experience with the test. Every person wishing to use the test must get the experience for himself" (17:121)

Speaking of the diagnostic difficulties of schizophrenia, Rorschach wrote: "At times it is impossible to determine from the record whether a schizophrenic reaction is manifest, latent, or dormant for the time being. Catatonics who have almost completely recovered may appear more obviously ill in their records than cases who are clinically still obvious schizophrenics. Sometimes the test findings indicated as schizophrenic people who had never shown the slightest indication of the disease but who had schizophrenic parents or siblings" (17:121). If Rorschach were right, his method would lead to many erroneous diagnoses among schizophrenic patients, for the clinical psychiatric diagnosis is based on manifest and not on latent symptoms. However, it must be borne in mind that Rorschach made these statements before he created a separate category for the chiaroscuro or shading responses. [18] Now, the shading responses provide the main clue in determining to what degree the patient's personality traits, indicated in the record, are manifest in his outward behavior. (See 12.)

2. THE PATHOGNOMONIC DIAGNOSTIC PROCEDURE. At least three different procedures can be followed when using the Rorschach test as an aid in the diagnosis of schizophrenia. The procedures are not mutually exclusive; in fact, they supplement one another. One of them may be called the pathognomonic procedure. It consists in determining the signs which are specific of

*Associate in Psychiatry, College of Physicians and Surgeons, Columbia University and the New York State Psychiatric Institute and Hospital.

schizophrenia, and which occur only in the records of schizophrenics. Rorschach (17) described three of them: contamination (an unintelligible condensation of two or more different images into one without the patient being aware of it), a marked fluctuation in the acuity with which images are projected onto the plates (unpredictable variations in the form level), and responses determined merely by the location or number of the interpreted areas (e.g. interpreting two dots as "parents" because of their number, or a middle part as "heart" because of its location). Another sign, pathognomonic for schizophrenia, can be suggested here: inconstant percepts of variable dimness. This inconstancy has the following peculiarities: (a) the patient is not certain of the exact meaning of his percept; (b) some parts of the percept are visualized clearly and others dimly; (c) the dimness varies in intensity and sometimes to such an extent that the dimmer parts may intermittently cease to be visualized; (d) the patient's interpretation of the part that he visualizes rather clearly varies with the dimness of the remaining parts. A good example was found in the record of a schizophrenic, the mother of five children, one of whom was also a schizophrenic. She was interpreting the right red of Card X (in reversed position), focusing on the top part: "Here is another face again. A child's face or something (moves finger over upper half of red)--but I'm not sure. Maybe a woman's face (moves eyes over whole red), I don't know. Is it a child's face? (does not wait for answer). Yes, that's right." To all appearances the patient could not decide what areas were covered by her image. When she looked only at the upper part of the red, she thought of a child. When she looked at the whole red, she thought of a woman. Indeed, a woman is larger than a child. Thus while the head was perceived rather clearly, the rest of the body was visualized with inconstant dimness.

Every experienced and observant Rorschach analyst could name more signs specific of schizophrenia but extremely difficult to describe adequately and to demonstrate satisfactorily. To this category can be assigned the occasional ponderousness of the schizophrenic which at times can be easily detected, especially when the patient's responses have been recorded verbatim; also--the disproportion between the levity of the original responses and the earnest accuracy of the patient's subsequent elaboration of his responses.

The limitation of the pathognomonic procedure is due to the fact that a very large proportion of schizophrenics produces none of the pathognomonic signs. It may likewise be observed that the pathognomonic procedure utilizes only a small part of the record. Its greatest limitation is that the absence of pathognomonic signs does not imply that the patient is not a schizophrenic: he may still very well be one.

3. THE TABULAR DIAGNOSTIC PROCEDURE. The second diagnostic procedure may be called tabular because it is based mainly on those components of the Rorschach test which can be counted and tabulated. It usually consists in establishing the differences in the frequency with which the tabulated scoring symbols occur in the records of schizophrenic and non-schizophrenic, mainly healthy, subjects. No attention is paid to the dynamic relationships between the various psychological processes, indicated by the different scoring symbols. This method applies not to a proportion of patients like the pathognomic procedure but to all the patients. The pathognomonic procedure can be applied only to some patients but yields results of high validity, while the tabular procedure applies to all patients but is less valid. Table VIII of the Psychodiagnostics contains Rorschach's results achieved with the tabular procedure. Skalweit,[19] Muller,[9] Rickers-Ovsiankina,[16] Beck,[1] Klopfer and

Kelley,[7] Brussel and Hitch, [5] and several others [4, 8, 20] have published additional data gained by the statistical method of group differences. These investigators agree quite well when they enumerate the components which appear with significantly greater or lesser frequency in the group of schizophrenic records. It is striking, however, that none of them stated what number, or what combination, of the pertinent components sufficed to reveal a schizophrenic psychosis in the individual patient. There are few schizophrenics whose records contain all the components characteristic of the schizophrenic group as a whole, and thus the group differences alone cannot be an adequate criterion. That no one dared to push the tabular procedure beyond the determination of group differences and develop it into a reliable method applicable to individual cases, may be considered eloquent evidence of its insufficiency. It is not difficult to discover the reasons. In the first place the results of the tabular procedure vary with the degree of the schizophrenic's deviation from healthy behavior and with the intensity of his struggle against the effects of the psychosis. Rorschach must have been aware of this because he provided four different sets of tabular criteria: for the well preserved, the stereotyped, the scattered, and the simple schizophrenics. This statistical refinement, however, makes it necessary to study the patient well before his Rorschach record can be used diagnostically and thus defeats the independent diagnostic function of the method. Furthermore, a glance at Rorschach's table VIII discloses that his tabular criteria for the "well preserved" schizophrenics do not differ significantly from those for the normal or healthy subjects of average intelligence. Likewise the tabular criteria of Harrower's[6] patients with brain tumors are produced also by chronic, hospitalized schizophrenics and by patients in very severe anxiety states. It occurs not infrequently that the tabulated components are very similar, suggesting a superficial clinical similarity, and that a thorough analysis of the complete records discloses great differences.[10] It is particularly in the early stages of schizophrenia that the tabulated components of a patient's record will resemble averages obtained from healthy or neurotic groups and will be quite different from the published averages for schizophrenia. And it is in the incipient stage that a Rorschach examination is most desired and helpful. Therefore a new approach is needed.

4. THE SYSTEMATIC DIAGNOSTIC PROCEDURE. The new diagnostic procedure can be named systematic. It is based not on components isolated from the whole record and juxtaposed merely as a result of statistical group differences. It rests on principles which interrelate the components of the Rorschach method, expressing their mutual dependencies and arranging them into a dynamic system. The beginnings can be traced to the Psychodiagnostics in which Rorschach mentioned one of the principles in connection with the diagnosis of a normal, "mentally well preserved" eighty-year old woman: "This case was diagnosed 'blind' and the diagnosis proved to be wrong. The disparity between the experience type (M:C=0:0) and the form visualization (F+% 65) led me to assume latent schizophrenia or schizophrenia which had reached a level of good preservation as the most probable diagnosis. Later cases showed, however, that similar results may be obtained from aged subjects otherwise normal. I had no data as to the age of the subject when the diagnosis was made." Rorschach mentioned this principle once more, but only implicitly when, discussing the diagnosis of a paranoid thirty-year old schizophrenic, he cited the coexistence of six human movement responses and a relatively low percentage of sharply conceived forms (F+% 70) as one of the arguments in favor of schizophrenia. He did not, however, extend this approach; on the contrary he stressed rather the static and statistical approach in diagnosis: "In reaching a diagnosis one or the other of these factors (that must be considered) will require more thorough study as the work goes on until a complete diagnostic

picture is developed." His failure to establish the systematic diagnostic procedure might have been responsible for his assertion that "there are many individual ways of going at the test" (17:122) and that universal procedures of diagnosis seem impossible.

It was probably his belief in the universal validity of the principles he formulated that prevented Rorschach from extending the systematic approach from personality analysis (cf. his excellent blind analysis published by Oberholzer)[18] to the solution of diagnostic problems. E.g., he declared (17:79): "the more kinaesthesias (human movement responses), the less physical activity; the more physical activity, the less kinaesthesias." This is obviously not true in the case of schizophrenics and paretics, i.e., in the case of patients with some disease of the central nervous system. A frank acknowledgment of such exceptions and a clear understanding of their causes enable us to use the above and other principles as aids in diagnosis. There are, of course, a number of valid principles describing the mutual dependence of components, and all of them can be verified in all individuals except in those who either suffer from some disease of the central nervous system, or whose central nervous system grows (childhood) or decays (senility). Examples are the principle that, all other conditions being equal, the higher the number of human responses, the higher the percentage of sharply conceived forms, or that the larger the sum of the color responses, especially of the color-form and pure color responses, the larger the number of shading responses and/or the smaller the number of whole responses. These and similar laws are valid for the approximately ninety-nine per cent of non-senile adults (subjects who reached puberty) whose central nervous system is not diseased. Those whose Rorschach records violate the laws belong to the remaining approximately one per cent of the adult, non-senile population; they are patients with psychoses or organic diseases of the brain. It is on this observation that the systematic diagnostic procedure is based.

5. A GROUP OF THIRTY INCIPIENT SCHIZOPHRENICS. The pathognomonic and tabular procedures frequently fail in the recognition of incipient schizophrenia. Thirty incipient schizophrenics, studied in the New York State Psychiatric Institute, which is under the direction of Dr. Nolan D. C. Lewis, produced Rorschach records that were different from those described in literature as typical of schizophrenia. Those patients were included in the group who had been discharged with the clinical diagnosis of schizophrenia (or dementia praecox) and whose Rorschach records showed a percentage of sharply conceived forms of 75 or more. Rorschach defined the F+% as a measure of the clarity of perceptions and of the capacity for constant and active (voluntary) attention. All other conditions being equal, the higher the F+%, the weaker the effect of the psychosis upon the intellectual functions, and the smaller the deviation of the patient's reasoning from the norm (from its functioning in the state of health). Every patient was examined by several psychiatrists. The patients were treated for a period of 6 months on the average ($Q_1$ = 4 months, $Q_3$ = 8 months). The diagnoses, then, were made after a careful and prolonged observation. A number of biographical data confirm the impression that the patients were early cases of schizophrenia. Only three patients had been hospitalized before their first admission to the Psychiatric Institute. In two cases there was one previous admission preceding the P.I. admission by 3½ years and 2 months respectively; the third case had had 3 previous admissions, preceding the P.I. admission by 1, 2, and 3 years. These three patients were discharged from P.I. as improved. Although nine of the patients failed to improve, none was committed to a state hospital; in two cases institutionalization was advised and in two other cases psychotherapy was continued in the out-patient department. Neurological examinations

revealed defects, but minor ones, in one-fifth of the group (2 of the 6 were unimproved). Electroencephalograms were available in one-half of the group: 9 (2 of the unimproved) had normal EEGs, 3 (all improved) borderline EEGs, 1 (much improved) abnormal on hyperventilation, and 2 (both unimproved) had abnormal EEGs.

The Rorschach findings also show that our group has been less affected by schizophrenia than, e.g., the groups studied by Skalweit, [19] Rickers-Ovsiankina, [16] or Beck. [1] Our group occupies a middle position between these three groups of schizophrenics and the healthy control groups.

Table I. Averages of human movement and color responses in schizophrenic and normal (healthy) groups

| | SCHIZOPHRENICS | | | NORMALS | |
|---|---|---|---|---|---|
| | Beck | Rickers-Ovsiankina | Present group | Beck | Rickers-Ovsiankina |
| No. cases | 81 | 37 | 30 | 64 | 20 |
| M | 2.8 | 1.3 | 2.5 | 3.3 | 2.2 |
| $\Sigma$ C | 3.7 | 4.1 | 3.1 | 2.8 | 1.9 |
| FC | .6 | 1.4 | 1.0 | 1.3 | 2.3 |
| CF | 2.2 | 1.8 | 2.0 | 1.4 | 1.1 |
| C | .9 | 1.3 | .4 | .3 | .0 |

Table II. Distribution of human movement responses and of the sums of color responses in groups of chronic (Skalweit) and incipient (Piotrowski) schizophrenics

| M | | 0 | 1 | 2-3 | 4-13 | N |
|---|---|---|---|---|---|---|
| CHRONIC | Abs. nos. | 47 | 24 | 10 | 9 | 90 |
| | % | 52 | 27 | 11 | 10 | 100% |
| INCIPIENT | Abs. nos. | 8 | 8 | 6 | 8 | 30 |
| | % | 27 | 27 | 20 | 26 | 100% |

| $\Sigma$ C | | 0 | .5-1.5 | 2-3.5 | 4-6.5 | 7-20.5 | N |
|---|---|---|---|---|---|---|---|
| CHRONIC | Abs. nos. | 7 | 13 | 23 | 22 | 25 | 90 |
| | % | 8 | 14 | 26 | 24 | 28 | 100% |
| INCIPIENT | Abs. Nos. | 6 | 6 | 9 | 7 | 2 | 30 |
| | % | 20 | 20 | 30 | 23 | 7 | 100% |

Rickers observed that 41% of her schizophrenics produced no human movement or M responses while only 20% of her normals failed to do so. In our group 27% of the patients failed to produce a single M. The schizophrenics in the Rickers and Skalweit groups were chronic patients who deviated relatively most from the norm of healthy subjects; these patients were hospitalized in state institutions. The Beck group seems to have deviated less from the norm of healthy subjects; they were examined in the Boston Psychopathic Hospital to which patients cannot be committed but which served mainly as a diagnostic center and, therefore, would have a significant proportion of incipient and new cases. The Psychiatric Institute accepts only voluntary patients and not patients committed by the courts. The average intelligence quotient of the Psychiatric Institute cases is superior; I.Q.'s were available for two-thirds of the group and their average I.Q. was 111. Thirteen of the patients were male and seventeen female. The average age was 23.8 years at the time of the Rorschach examination.

As far as Rorschach findings are concerned the present incipient group differs from the Beck and Rickers groups chiefly in two important components: the F+% and the $\Sigma C$. Their average percentage of sharply perceived forms is 86.8; it must be remembered that patients with F+% of below 75 were excluded. The mean F+% were 61.5 and 66.9 in the Beck and Rickers groups respectively. Our group shows a smaller number of color responses resembling best, in this as well as in other respects, Rorschach's "well preserved" schizophrenics. In fact, the number of human movement responses, or M, exceeded the sum of color responses, or $\Sigma C$, by more than one point in 8 cases; M exceeded $\Sigma C$ by no more than one point in 4 cases. M= $\Sigma C$ (0-0) in 3 cases. M was smaller than $\Sigma C$ by no more than one point in 4 cases, and by more than one point in 11 cases. Only one-sixth of our patients failed to interpret one, two, or three plates; these 5 patients altogether left 10 plates uninterpreted.

When the F+% was computed, the F, the Fc, and the Fc' [12] were treated as one. Had the FM (animal movement responses) also been included, the average F+% would have been higher than 86.8, because the percentage of sharply conceived forms among the FM is higher, on the whole, than among the F, Fc or Fc'. Beck and Rickers placed the FM with the F; Rorschach did likewise.

Great care was taken in the scoring of the color responses. When there was doubt, the patient was shown the miniature inkblots, normally used for scoring purposes; these small inkblots are printed only in gray tones and thus a comparison between the patient's reaction to the original, chromatically colored plate and his reaction to the achromatic, smaller copy of the original plate made it possible to decide, in nearly all cases, whether the chromatic color had or had not determined the patient's response.

The subjective complaints on admission or the outstanding symptoms could be divided into three main types. Seven patients complained chiefly of intellectual difficulties, e.g., of inability to concentrate, of hallucinations, of the mind being completely blank at times. In 10 patients the outstanding symptom was depression, and in 13 the outstanding symptom was anxiety.

6. THE PRINCIPLES OF THE SYSTEMATIC PERCEPTANALYTIC * DIAGNOSIS OF INCIPIENT SCHIZOPHRENIA. These principles are statements of fact which are assumed to be valid because with their aid perceptanalytic diagnoses were made which agreed very well with the clinical psychiatric discharge diagnoses. If possible, the perceptanalytic diagnoses of patients referred to clinical psychology in the New York Psychiatric Institute, are made 'blind'. In this way the clinical psychiatric diagnoses and the experimental psychological diagnoses are reached by very different and truly independent methods. The psychiatric diagnoses are known for 86 patients declared either schizophrenic or neurotic. This group includes the 30 schizophrenics described above (see point 5). As is evident from table III, the 'blind' experimental diagnoses were confirmed by clinical psychiatric observations of at least several months duration in 96.5% of the cases. Since the reliability of neither the clinical nor experimental diagnosis can be expected to be perfect, the agreement between the two diagnostic methods can hardly ever be complete.

Table III. Agreement between experimental 'blind' perceptanalytic diagnoses and clinical psychiatric discharge diagnoses of adult schizophrenics and neurotics

| | | Clinical Diagnoses | | |
|---|---|---|---|---|
| | | Schizo. | Neuro. | Total |
| Experimental Diagnoses | Schizo. | 52 | 2 | 54 |
| | Neuro. | 1 | 31 | 32 |
| | Total | 53 | 33 | 86 |

The following principles appear necessary and sufficient:

(a) Those personality traits which are accessible to perceptanalysis refer chiefly to the individual's actions upon other members of his social environment, to the part which he plays in the interactions of his environment and himself. [13] In Rorschach's words, his method reveals "the manner in which the individual experiences the world." This experiencing refers to actions as well as to feelings and thoughts. Perceptanalysis seems concerned primarily with the socio-psychological functions of the individual.

(b) There is no effect without a cause, be it in physics or in psychology. Above all, tension is never unmotivated. Depression and anxiety have their causes, and the causes can be manifold.

* Perceptanalytic (or pertaining to an analysis) principles conform to Rorschach's interpretive principles, of percepts projected by the subject (patient) into an indeterminate visual material (inkblots).

(c) In incipient schizophrenia it is usually difficult, if not impossible, to detect primary intellectual deficiencies, i.e., intellectual defifiencies independent of emotional (or psychogenic) inner tension. For this reason the investigation of the intellectual functions is of little, if any, aid in arriving at a diagnosis. Thus we must turn to the pathology of emotional life for diagnostic clues. Depression and anxiety are very frequent symptoms in incipient schizophrenia but they are not diagnostically specific symptoms: they occur in both neurosis, when the central nervous system is not diseased, and psychosis, when to all appearances the central nervous system is diseased.

(d) The perceptanalytic diagnostic criteria which differentiate rather accurately between neurosis and psychosis clearly imply a psychological difference in kind, and not merely in degree, between the two mental states. In neurosis, or in a mental state in which the patient still possesses the same reality criteria as the healthy person, the intensity of anxiety and/or depression is proportionate to the adjustment difficulties which concern exclusively the patient's relationships with others. In psychosis, or in a mental state in which the patient uses reality criteria which are different from, and less consistent than, those of the healthy individual, the anxiety and depression are disproportionate to the patient's adjustment difficulties in so far as they pertain exclusively to interpersonal relationships; anxiety and/or depression may be disproportionately great or disproportionately weak. The lack of proportion is ascribed to personality disturbances caused by a disease of the central nervous system; therefore they are not psychogenic. The disproportionately strong anxiety or depression would be a reaction to a disintegration of personality of which the patient had become aware. The disproportionately mild anxiety or depression would indicate that the disintegration has advanced so far that the patient has ceased to be alarmed by the great and adverse personality changes over which he has no control and which would disturb him markedly if his personality had not disintegrated.

(e) The law of compensation (see point 4) serves to differentiate between psychogenic and non-psychogenic anxiety and/or depression. When, in an individual's record, the perceptanalytic components indicative of tension are in direct and adequate proportion to the components indicative of tension-control, we deal with a psychogenic case. In this respect there is no difference in kind between the neurotic and the healthy subject. There is a difference in degree in that the numerical values of both tension and tension-control components are greater in the record of a neurotic than in that of a healthy person. In the perceptanalytic record of a psychotic no direct and adequate indication of tension-control can be found; the two types of components are not equivalent in strength, they do not compensate one another.

Several examples will clarify the concept of compensation. A person with powerful and impulsive feelings (many CF and C, especially of the earthy variety [15]) should develop a high degree of motor control and circumspection (many Fc and c [12]), or limit his drive (few W), or do both if he desires to adjust well to his fellowmen. Likewise, the stronger the drive (many and differentiated W), the higher should be circumspection and self control (many Fc and a high F+%) to assure a satisfactory adjustment to reality.

(f) Once the decision has been made that all or some of the patient's psychological conflicts cannot be explained psychogenically, it is, in the large majority of cases, relatively easy to reach the conclusion whether or not the patient is a schizophrenic. At this stage of perceptanalytic diagnosis, the pathognomonic and tabular diagnostic criteria (see points 2 and 3) can be used to supplement the systematic diagnostic approach. The tabular criteria lead to considerably fewer erroneous diagnoses when they are employed not to differentiate schizophrenia from neurosis but schizophrenia from the manic-depressive psychosis or from personality disorders caused by organic diseases of the brain. The differential criteria used most frequently at this diagnostic stage are the high percentage of sharply conceived forms, the good quality of most responses, the marked fluctuation of performance level, the unpredictable and often very original small detail responses, and other pathognomonic signs.

7. THE TECHNIQUE OF THE SYSTEMATIC PERCEPTANALYTIC DIAGNOSIS OF INCIPIENT SCHIZOPHRENIA. In most cases of advanced or chronic schizophrenia Rorschach's principle of the inverse ratio between the M:C on the one hand, and the F+% on the other, can be used as the main basis for a perceptanalytic diagnosis. For, when the percentage of sharply conceived forms (F+%) as well as the number of human movement responses (M) and of color responses (C) is significantly below the average for healthy subjects, we are dealing with a case of psychosis or mental deficiency, provided the patient has reached puberty and is not senile.

Since in the incipient cases of schizophrenia the F+% is usually high,[11] other formulae must serve as the basis for a systematic diagnosis. Whenever the patient's F+% is within the average range (this range having been determined by data obtained from a healthy group), it seems practical to pivot the perceptanalytic diagnosis on the F+%. Two different lists of components have been made, one containing components which, in a non-demented adult, raise the F+%, the other comprising components that lower the F+%.

It appears advisable to use symbols for the sake of brevity and clarity. When a symbol or word is underlined, it means: many, much, or high. Double underlining means: very many or very much. When a symbol or word is put in parentheses, it means: few, little, or low. Double parentheses mean: none or very few. Much and little refer to deviations from averages obtained from a study of healthy adults.[14] Most of the symbols are well known. To avoid misunderstanding the less known symbols are herewith defined:

| | | |
|---|---|---|
| CR | stands for: | number of color responses |
| c | " " | number of shading responses [12] |
| c' | " " | number of dark-shading responses [12] |
| R | " " | total number of scorable responses |
| T/R | " " | average time per scorable response |
| R(VIII-X)% | " " | percentage of scorable responses given to the last three plates |
| IntRT | " " | initial reaction time, or the average of times which elapsed between handing the plates to the patient and his first scorable response to each plate |
| IntRT(col) | " " | IntRT to the five colored plates |
| IntRT(noncol) | " " | IntRT to the five gray plates |

The following components raise the F+% in adults with a non-diseased central nervous system: (R). (W). d. M. M > CR. (CR); esp. ((C & CF)). T/R. IntRT. c. (R(VIII-X)%). Popular. Depression.

The following components lower the F+% in adults with a non-diseased central nervous system: R. W. (d). (M). M < CR. CR: esp. C & CF. Color shock. ((T/R)). IntRT(col) < IntRT(noncol). ((c)). c'. (Popular). Agitation & manifest anxiety.

The following rule for a systematic diagnostic procedure has been observed: When the two kinds of components, those that raise the F+% and those that lower it, do not compensate one another but are unequal in strength or intensity, then the patient's mental conflicts cannot be explained psychogenically but are considered to be due (in part, if not wholly) to a psychotic disease process or to an organic brain disease - provided the patient has reached puberty and has not deteriorated because of old age.

The application of this rule to individual cases will be illustrated briefly on the records of two schizophrenics. Brown's list of 20 popular responses served as a standard.[2]

CASE I. This 19 year old, male, art student had a Bellevue IQ of 119; the verbal quotient was 125, and the performance quotient was 108. On admission he was quiet, depressed, and did not want to see anyone; he had a feeling of inferiority and thoughts of suicide. The electroencephalogram revealed a mild electrocortical dysfunction brought out by hyperventilation. The patient was discharged after 11 months of treatment with a diagnosis of dementia praecox, type undetermined; condition much improved.

His perceptanalytic record contained the following F+% raising components: (W); M > CR; (CR); ((C & CF)); IntRT; c. There were no F+% lowering components. Some other important components were: R=32; d=3; T/R=.56'; F+%=83; no color shock; R(VIII-X)%=38; FC:CF:C=2:0:0; Popular=9. On the basis of the tabulated data it was not comprehensible why this man with 2 FC, an M:CR=3:1, a high F+%, an average number of populars, an about average number of total responses given at about the normal pace, should be so markedly inhibited. The inhibition was shown by the small number of whole responses, W=5; his large number of shading responses, Fc=11 and Fc'=1; and his long initial delay, IntRT=14.1". The strength of the F+% raising components was far in excess; in fact there were no F+% lowering components to compensate. Thus the patient's inhibition, manifested by his depression and anxiety, was considered of non-psychogenic origin. It was relatively easy to eliminate a demonstrable organic brain disease and the manic-depressive psychosis. The generally high performance level, the high percentage of sharply conceived forms, the occasional imaginative responses, and the good evidence (awareness of the problem of fit), both positive and negative, seemed inconsistent with personality changes that might be caused by a demonstrable organic brain disease. The coexistence of signs of imagination and depression seemed to rule out the manic-depressive psychosis. Thus the patient's perceptanalytic diagnosis was schizophrenia.

CASE II. This 20 year old female student was failing in her premedical courses. Her Bellevue IQ was 117; her verbal quotient was 118 and her performance quotient was 114 when tested in the hospital. On admission she complained of inability to concentrate and to make friends. She did not speak spontaneously and answered questions with single words or in brief sentences. Neither the neurological examination nor the electroencephalogram revealed any abnormalities. The patient was discharged with a diagnosis: dementia praecox, hebephrenic type; condition unimproved.

These were the patient's F+% raising components: (R); M > CR; and IntRT. The F+% lowering components were: (d); Color shock; IntRT(col) > IntRT(noncol); (c); and (Popular). Other significant components included: F+%=100; T/R=.51'; W=7; D=6; R(VIII-X)%=38. There were only 2 F and 1 Fc; the other determinants were 4 M, 3 FM, 1 FC, and 2 CF. The IntRT(I-X) was 27.4", but IntRT(VIII-X) was 44.3" and IntRT(I-VII) was only 21.6"; the longest delays were in the last three colored plates. Now, this patient did not seem to be in any danger of maladjustment as indicated by the very high F+%, the good M:CR ratio, the consistently extensor quality of the 4 M, the weak prompting quality of the CF (1 "map", 1 "rock"), and the desirable distribution of mental energy (W:D). Yet the patient took extreme precautionary measures against possible failure; this was shown by her F+% raising components, the meager productivity and the long time preceding all responses. Furthermore, in spite of the apparent lack of tendencies which might lead to maladjustment, and the great cautiousness, the patient was still very insecure, not being able to alleviate her anxiety, (cf. the marked color shock), lacked circumspection (only 1 Fc), did not share adequately in the common ideas of her environment (number of populars below the average), and did not give up her willingness to perform difficult tasks (usual number of W, and no d). These serious inconsistencies suggested a marked degree of personality disintegration; the patient's conflicts must have been of non-psychogenic origin. The schizophrenic nature of the psychosis was signified by the very high F+%, the good number of M and the M > CR in the presence of a marked initial delay, and the generally high performance level.

It is believed that more exact formulae, founded on principles of the systematic diagnostic procedure, will be derived when a larger group of patients shall have been studied. However the experience, already available, proves that experimental psychological diagnoses can be dependable. It also justifies the hope that it may not be necessary that every perceptanalyst work out his own diagnostic procedure. Nevertheless it seems that sound psychological thinking and extensive experience in perceptanalysis will always have to be acquired before gratifying results can be achieved.

REFERENCES

(1) Beck, S. J. Personality Structure in Schizophrenia. Nerv. & Mental Dis. Monograph #63. New York, pp. ix+88; 1938.

(2) Beck, S. J. Rorschach's Test. I. Basic Processes. New York, Grune & Stratton, pp. xiii+223; 1944.

(3) Benjamin, J. D. and Ebaugh, F. G. The diagnostic validity of the Rorschach test. Amer. J. Psychiat., 94:1163-1178; 1938.

(4) Binswanger, W. Uber den Rorschach'schen Formdeutversuch bei akuten Schizophrenien. Schweiz. Arch.f.Neur. u. Psychiat., 53:101-121; 1944.

(5) Brussel, J. A. and Hitch, K. S. The Rorschach method and its uses in military psychiatry. Psychiat. Quart., 16:3-29; 1942.

(6) Harrower-Erickson, M. R. Personality changes accompanying cerebral lesions. Arch. Neurol. & Psychiat., 43:859-890; 1940.

(7) Klopfer, B. and Kelley, D. M. The Rorschach Technique. Yonkers-on-Hudson, World Book Co., pp. 436; 1942.

(8) Monnier, M. Le test psychologique de Rorschach. L'encephale, 29:189-201, 247-270; 1934.

(9) Muller, M. Der Rorschachsche Formdeutversuch, seine Schwierigkeiten und Ergebnisse. Zsch. f. d. ges. Neur. u. Psychiat., 118:598-620; 1929.

(10) Oberholzer, E. Zur Differentialdiagnose psychischer Folgezustande nach Schadeltraumen mittels des Rorschachschen Formdeutversuch. Zsch.f.d. ges. Neur. u. Psychiat., 136:596-629; 1931.

(11) Piotrowski, Z. A. Rorschach manifestations of improvement in insulin treated schizophrenics. Psychosom. Med., 1:508-526; 1939.

(12) Piotrowski, Z. A. A comparative table of the main Rorschach symbols. Psychiat. Quart., 16:30-37; 1942.

(13) Piotrowski, Z. A. The modifiability of personality as revealed by the Rorschach method. Rorschach Res. Exch., 6:160-167; 1942.

(14) Piotrowski, Z. A. Tentative Rorschach formulae for educational and vocational guidance in adolescence. Rorschach Res. Exch., 7:16-27; 1943.

(15) Piotrowski, Z. A. Rorschach records of children with a tic syndrome. The Nervous Child, v. 4; 1945.

(16) Rickers-Ovsiankina, M. The Rorschach test as applied to normal and schizophrenic subjects. Brit. J. Med. Psychol., 17:227-257; 1938.

(17) Rorschach, H. Psychodiagnostics. 1st edit; 1921. English transl., Berne (Switzerland), H. Huber, pp. 226; 1942.

(18) Rorschach, H. The application of the form interpretation test. Edit. by E. Oberholzer. In Psychodiagnostics (see ref. #17), pp. 184-216. Also in J. Nerv. & Mental Dis., 60:225-248, 359-379; 1924.

(19) Skalweit. Konstitution und Prozess in der Schizophrenie. Leipzig, G. Thieme, pp. 88; 1934.

(20) Tschudin, A. Chronishe Schizophrenien im Rorschachschen Versuch. Schweiz. Arch, f. Neurol. u. Psychiat., 53:79-100; 1944.

# NOTES AND REVIEWS

## THE SIMILARITY IN RORSCHACH PATTERNS OF ADULT CRIMINAL PSYCHOPATHS AND PRE-ADOLESCENT BOYS

George A. Geil*

The study of adult criminal psuchopaths with the Rorschach method at the Medical Center for Federal Prisoners, Springfield, Missouri first was undertaken in July, 1941. The markedly immature personality development of these subjects was clearly revealed as was stressed by this writer in two earlier papers (2) (3). Similar findings on adult criminals also have been reported by other investigators (1) (4). It is the purpose of the present paper to point out the striking similarities in the Rorschach patterning of a group of 50 adult criminal psychopaths and a group of 67 pre-adolescent boys, originally studied by Stavrianos (7). Such comparative data will be used to show that these adult criminal psychopaths give a Rorschach patterning which closely approximates that found to be characteristic at the pre-adolescent stage of personality development.

### SELECTION OF CASES

The group of 50 psychopaths used for this study was selected from the Psychopathic Unit of the Medical Center where approximately 200 of the most troublesome offenders in the Federal Prison System are quartered. The neuropsychiatric staff took particular care in selecting these subjects to exclude all who gave a clinical impression of defective intelligence, neurosis, or psychosis. There was a complete agreement concerning the diagnosis of psychopathic personality in all cases retained for this study. The mean age of this group of 50 psychopaths was 22 years (range 16 to 32 years). Average intelligence was indicated for the group with a mean Wechler-Bellevue I.Q. of 99.5 (I.Q. range 70 to 131).

The Rorschach data for the group of 67 pre-adolescent boys were supplied by Stavrianos (7). These boys ranged in age from five to 11 years (mean age eight years) and were selected almost entirely from a public school. Some of these boys were given standardized intelligence tests, and teacher's ratings were used to provide a rough estimate of the intelligence of those not tested. The entire group of pre-adolescent boys was judged to be of at least average intelligence.

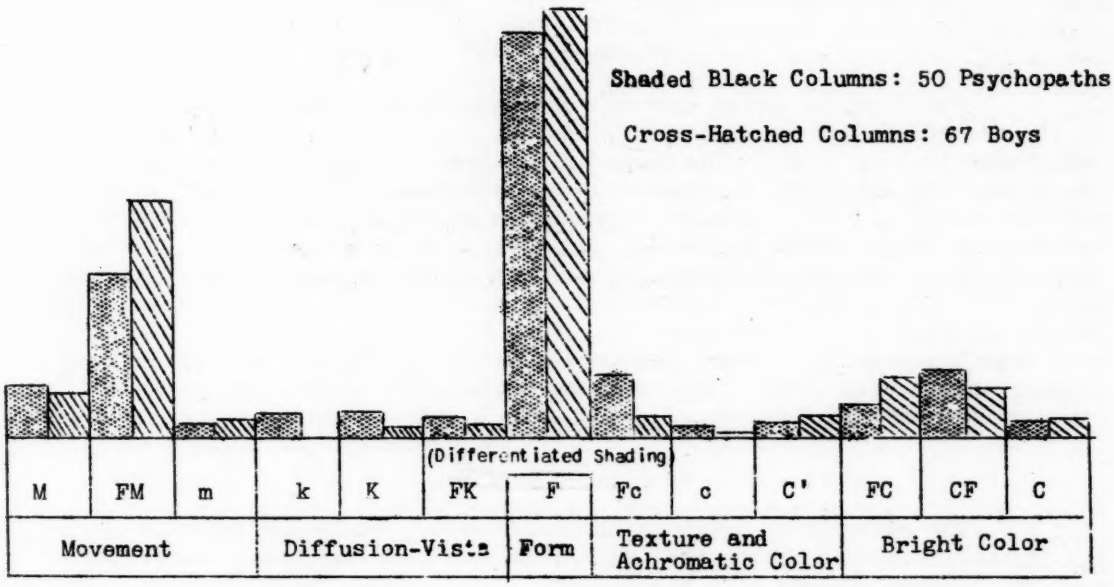
### RORSCHACH DATA AND DISCUSSION

The tabulated Rorschach material for the groups of 50 adult criminal psychopaths and 67 pre-adolescent boys is shown in Tables I and II. Table I presents composite psychograms showing the mean distribution of the major Rorschach determinants for both groups, as well as a tabulation of data pertaining to the relationships that exist among various Rorschach factors. Table II gives the mean number and percentage of responses occurring under the various scoring categories for location, determinants, and content.

*Associate Psychologist, United States Public Health Service.

TABLE I

Composite Rorschach Psychogram and Relationships Among Rorschach Factors for Adult Criminal Psychopaths and 67 Pre-Adolescent Boys.




RELATIONSHIPS AMONG FACTORS

| Factors | 50 Adult Psychopaths | 67 Boys |
|---|---|---|
| Total Number of Responses | 15.1 | 15.2 |
| W% | 52.7 | 41.6 |
| D% | 37.2 | 43.9 |
| d% | 2.1 | 6.1 |
| Dd% | 7.3 | 6.9 |
| S% | .6 | 1.5 |
| Dd% plus S% | 8.0 | 8.4 |
| F% | 48.6 | 49.7 |
| FK+F+Fc | 57.7 | 51.9 |
| A% | 53.1 | 56.3 |
| Number of P | 3.8 | 2.8 |
| Number of O | 1.7 | 2.5 |
| (H+A) : (Hd+Ad) | 7.4: 2.1 | 8.4: 1.9 |
| M: sum C | .8: 1.7 | .7: 1.1 |
| (FM+m): (Fc+c+C') | 2.9: 1.3 | 4.3: .4 |
| Cards VIII, IX, X% | 35.9 | 38.7 |
| W:M | 7.9: .8 | 6.3: .7 |

In Table I it is to be noted that the average number of total responses given by adult psychopaths was 15; the same was given by the pre-adolescent boys. Since both groups have given the same average total number of responses, comparisons can be made from the mean scores as conveniently as from percentages. The two psychograms approxiamte each other so closely in the form, shading, movement, and bright color areas, as to lead one to postulate a similar degree of maturity in the personality development. The percentages of responses falling in the central area of the graph are fairly close for both groups and point to an unrefined, rigid intellectual control. Of the two groups the psychopaths were but slightly more reactive to differentiated shading, showing a total percentage of FK+F+Fc responses of 57.7 percent whereas the boys gave 51.9 percent. Normally one does not expect to find much differentiated shading reactivity in young children but insufficient use of this type of shading by intellectually adequate adults is a definite sign of maladjustment. As a rule shading responses occur infrequently in the records of young children but tend to increase with age. The greater number of K and k responses among the psychopaths implies the presence of a noticeable degree of free floating anxiety.

A similarity of relationships is indicated in the area of the graph covered by the determinant categories for movement. Among both groups the animal action responses (FM) far outnumber the human or human-like action responses (M). Relatively few abstract or inanimate (m) responses were given by either group. Prior to puberty the M responses are given infrequently except by children of superior intelligence. The relative absence of M responses in these psychopaths of average intelligence implies a lack of maturity and stability. The psychopaths' greater reluctance to accept inner drives including instinctual promptings as a constructive force within the personality structure, is reflected by their lower number of FM responses. Their increased tendency to react to diffused shading (K, k) may signify the anxiety resulting from an inability to bring "promptings from within" under proper control.

The distribution of responses involving bright color determinants (Table I) was found to be definitely less favorable for the psychopaths than for the pre-adolescent boys. The more adapted FC type of responses (fusion of definite form with color) implying capacity for good emotional control and social adjustments to the outer reality, was given only about half as often by the psychopaths as by the boys. The more egocentric color responses of the CF type (bright color with indefinite form) signifying the less rationally controlled, impulsive emotional reaction tendencies, showed a definitely higher incidence among the psychopaths. By these bright color reactions the emotional adjustment of psychopaths is shown to be more unadapted and less stabilized than that of the eight year old boys.

Klopfer and Kelley (5) have pointed out that the FC and CF relationship is closely related parallel to the relationship of M and FM (movement side of graph). In this regard they have stated, "It is easily understandable that a combination of unchecked predominance of CF over FC, with predominance of FM over M, gives the most unfavorable picture (except when found in children below eight years): a mixture of infantilism and lack of control". Our adult psychopaths have presented exactly this unfavorable picture.

The greater immaturity of the psychopaths' manner of approach is shown also by the W, D, d, Dd and S. location percentages shown in Table I. Young children characteristically give a high percentage of whole blot interpretations. As they become older the percentage of whole interpretations

decreases and that of large and small detail interpretations increases, signifying a more balanced and planful mental approach to new situations. As rounded to the nearest whole percent the location percentages for adult psychopaths were 53 percent W, 37 percent D, 2 percent d, 8 percent Dd and S. The comparable location percentages for boys were 42 percent W, 44 percent D, 6 percent d, and 8 percent Dd and S. In contrast to the boys, the psychopaths' higher percentage of whole interpretations and correspondingly lower percentages of large and small detail interpretations indicate an even less mature manner of approach than that exhibited by the boys.

In the Rorschach three quotients are used for determining the basic personality configurations (Erlebnistyp or experience range). These are: the ratio of M to sum C, the ratio of FM+m to Fc+c+C', and the percentage of responses to the last three cards. In general these three ratios shown in Table I indicate that the adult psychopaths and the boys are very little stimulated either by promptings from within or by environmental stimuli. Well developed introversive and extratensive tendencies are not expected from young children. The point to be made here is that these psychopaths, in spite of their chronological age maturity, (mean age 22 years), have failed to show any more highly developed introversive and extratensive tendencies than those indicated for this group of pre-adolescent boys.

Table I also reveals a marked similarity between the two groups in the other relationships among factors. The W:M relationships are strikingly similar and indicate that these adult psychopaths of average intelligence are making scarcely more use of their creative and productive powers than are the eight year old boys. Few popular or original responses were given by either groups; the psychopaths gave a somewhat higher number of popular responses, while the boys gave a few more original.

In considering those factors which deal with the contents of the responses the findings indicate that the range of interests among psychopaths is no wider than that of the eight year olds. The percentage of animal responses (A percent) is quite high for both groups. The (H+A):(Hd+Ad) ratios are closely similar. The content section of Table II shows that the psychopaths gave an even lower percentage of human responses than the boys. When the contents of an adult record show relatively few human responses with a high stereotypy score (A percent) it is a sign of immaturity. As one might expect, the psychopaths' number of anatomy-sex responses was higher than the boys'. (cf. 6). A somewhat higher percentage of plant and cloud responses was given by the psychopaths, but the boys gave a noticeably higher percentage of nature responses. A wider variety of content is indicated for the boys, as shown by their higher percentage of responses falling in the "all other" category.

## SUMMARY

A comparison was made between the Rorschach findings on 50 adult criminal psychopaths and those on 67 pre-adolescent school boys. The results showed that these adult criminal psychopaths respond to the Rorschach blots in a way which closely approximates that found to be characteristic at a pre-adolescent stage of personality development.

TABLE II

Mean Numbers and Percentages of Rorschach Responses in Location, Determinant and Content Categories for 50 Adult Criminal Psychopaths and 67 Pre-Adolescent Boys.

| Scoring Symbols | 50 Adult Psychopaths | | 67 Boys | |
|---|---|---|---|---|
| Mean Number of Responses | 15.06 | | 15.16 | |
| Mean Age | 21 Years, 11 months | | 8 Years, 0 months | |
| | Mean | Percent | Mean | Percent |
| **Location** | | | | |
| W | 7.94 | 52.72 | 6.31 | 41.63 |
| D | 5.60 | 37.18 | 6.66 | 43.90 |
| d | .32 | 2.12 | .93 | 6.10 |
| Dd | 1.10 | 7.31 | 1.04 | 6.89 |
| S | .10 | .66 | .22 | 1.48 |
| Dd+S | 1.20 | 7.97 | 1.26 | 8.37 |
| **Determinants** | | | | |
| M | .82 | 5.44 | .70 | 4.63 |
| FM | 2.80 | 18.59 | 4.12 | 27.17 |
| m | .10 | .66 | .19 | 1.28 |
| k | .24 | 1.59 | .00 | .00 |
| K | .36 | 2.39 | .04 | .30 |
| FK | .30 | 1.99 | .16 | 1.08 |
| F | 7.32 | 48.60 | 7.54 | 49.70 |
| Fc | 1.08 | 7.17 | .18 | 1.18 |
| c | .06 | .39 | .00 | .00 |
| C' | .12 | .79 | .25 | 1.67 |
| FC | .52 | 3.45 | 1.00 | 6.59 |
| CF | 1.14 | 7.56 | .76 | 5.02 |
| C | .20 | 1.32 | .21 | 1.38 |
| **Content** | | | | |
| H | .84 | 5.57 | 1.09 | 7.18 |
| Hd | .68 | 4.51 | .72 | 4.72 |
| A | 6.60 | 43.82 | 7.30 | 48.13 |
| Ad | 1.40 | 9.29 | 1.24 | 8.17 |
| Aobj | .54 | 3.58 | .31 | 2.07 |
| At&Sex | .86 | 5.71 | .19 | 1.28 |
| AAt | .36 | 2.39 | .22 | 1.48 |
| Obj | .84 | 5.57 | .99 | 6.50 |
| Pl | .60 | 3.98 | .10 | .69 |
| N | .56 | 3.71 | .93 | 6.10 |
| Geo | .36 | 2.39 | .28 | 1.89 |
| Food | .10 | .66 | .03 | .20 |
| Clouds | .34 | 2.25 | .06 | .39 |
| Blood | .02 | .13 | .01 | .10 |
| Fire | .10 | .66 | .09 | .59 |
| Mask | .08 | .53 | .01 | .10 |
| All others | .78 | 5.16 | 1.58 | 10.44 |
| **Popularity and Originality** | | | | |
| P | 3.84 | 25.49 | 2.85 | 18.00 |
| O | 1.76 | 11.68 | 2.52 | 16.83 |

## BIBLIOGRAPHY


(1). Banay, R. S. — "Immaturity and Crime". 98th Annual Meeting, American Psychiatric Association, Boston, Mass., May, 1943.

(2). Geil, G. A. — "Fifth Progress Report of the Psychopathic Unit", Medical Center for Federal Prisoners, Springfield, Missouri. (For the period of July 1 to December 31, 1941) pp. 34-44.

(3). Geil, G. A. — "Psychological Studies Concerning Psychopaths", Proceedings of the 1942 Congress American Prison Association. pp. 122-128.

(4). Glueck, Sheldon — "Immaturity and Crime" (Discussion of). 98th Annual Meeting American Psychiatric Association, Boston, Mass., May, 1943. The American Journal of Psychiatry, Vol. 100, No. 1, July, 1943. p. 175.

(5). Klopfer, B. and Kelley, D. M. — "The Rorschach Technique", World Book Company, Yonkers-on-Hudson, New York, 1942.

(6). Pescor, M. J. — "Age of Delinquents in Relationship to Rorschach Test Scores", Public Health Reports, Washington, 1938, 53, 852-864.

(7). Stavrianos, B. — "An Investigation of Sex Differences in Children as Revelaed by the Rorschach Method"--Rorschach Research Exchange, Vol. 6, No. 1, January, 1942.

# THE EFFICACY OF GROUP THERAPY AS INDICATED BY GROUP RORSCHACH RECORDS

## Effect of a Convalescent Hosptial's Neuro-Psychiatric Treatment Program on a Group of Soldiers in an Anxiety State.

by Walter G. Klopfer.*
Pfc. Medical Dept., A.U.S.

A soldier-patient's stay at a convalescent hospital is the period following his actual hospitalization and preceding his return to duty or discharge from military service. During this time, the patient goes through a regular, daily reconditioning program, which is designed to make him better fit, both physically and psychologically, for his return to duty or civilian life, depending on the type of disposition decided on by the psychiatrist in charge.

This program consists of the following:

1. One hour of "ward rounds", during which time the psychiatrists see all their patients briefly, and determine the present status of their health.

2. Two hours of "physical reconditioning", during which time the patients engage either in supervised remedial gymnastics and exercises, or in organized ball games.

3. Two hours of "educational reconditioning" during which time the patients attend a class on the subject of their choice within the limits of the program available.

4. One hour of "orientation" speeches by outside speakers or members of the "information and Education" staff on various subjects of interest.

5. One hour of "Group Psychotherapy", during which psychiatrists, psychologists, and psychiatric social workers meet with groups of 10 to 15 patients, and attempt to give them some guidance along the road to recovery.

In order to obtain some measure of the effect of this program upon the patients the following experiment was carried out with nine subjects. While the number of cases is far too small for statistically reliable conclusions, the results presented may be accepted as indicating the successful use of the Rorschach method for this purpose.

The group of patients was selected on the basis of the following criteria:

1. They had all recently returned from overseas with a clinical diagnosis of "anxiety state".

2. They were all of average intelligence or above, as measured by the Army General Classification Test.

---

*Assistant Clinical Psychologist, Valley Forge General Hospital, Phoenixville, Pa.

3. They were all informed that they were to be discharged from military service at the end of their period of convalescence.

This group was given the Group Rorschach* before and after a three week period of the convalescent program described above, including a series of group therapy sessions.**

The two sets of records were then evaluated by Dr. Bruno Klopfer for signs of "improvement" which were found to be as follows:

1. General increase in productivity.

2. The overcoming of rejections by popular or better responses.

3. Increase in the use of colored areas (e.g. Card II, first test: "Blot suggests two dwarfs with red caps face to face each placing his hand to the other's; hand, palm outward. I see no faces however, but the overall impression is there." Second test: "Lower part of blot reminds me of a butterfly. Overall design that of two clowns. They seem alive.")

4. Increase in the degree of specification (e.g. Card II, "Two people" become "Two human beings holding hands.").

5. Greater variability of concepts in response to the same area (e.g. Card III, first test: "Two people washing up.". Second test: "Two savages standing around a boiling pot. Could also be two fellows washing their hands in a double wash basin. Towels are hanging directly behind each one.").

6. Replacement of crude outline or anatomy responses by popular responses (e.g. Card I, "A skeleton of an animal's head" becomes "Bat.").

7. Replacement of an inferior type of response by a rejection (e.g. Card VI: first called "A boat," later rejected.).

8. Disappearance of disturbances indicated in the content (e.g. Card IV, first test: "This could represent most anything such as shell piercing a cocoon which shatters it. Or a tree with two roots upon it." Second test: "A stem or tree with two boots hanging on it.").

In general, the following observations were made in comparing the two sets of Rorschach records of these nine patients, utilizing simultaneously the above mentioned signs, and the interpretative characteristics of each record.

---

*Described by Harrower-Erickson, and modified by Sender. Harrower, M.R. and Steiner, M.E. Modification of the Rorschach method for use as a group test. Rorschach Research Exchange 1941,5; 130-144.

Sender, Sadie. The Influence of Variations in the Rorschach Group Method administration upon the scorability of the records. Rorschach Research Exchange, 1943, 7 - 54-69.

**Conducted by Lt. Harlan B. Wright, the clinical psychologist in charge, whose clinical impressions corroborated the Rorschach findings.

a. The records of three patients showed marked improvement in the direction of adjustment.

b. The records of two patients not severely disturbed at the start showed little improvement.

c. The records of two patients showed little or no mitigation of their anxiety symptoms.

d. Two patients appeared to have been so profoundly disturbed that the improvement consisted in adjustment at a more limited level of functioning.

An interesting by-product of the experiment is the consistency with which certain indications of the "anxiety state" appeared in nearly all the records, irrespective of the general intelligence and adjustment level of the subjects. These are:

1. Color disturbance almost invariably more intense than shading disturbance.

2. Color disturbance expressed either in rejection of one or more of the last three cards, or in a rather submissive and passive yielding to the color stimulation.

3. Lack of vigor in human and animal movement seems to be related to the degree of disturbance.

4. Reaction to promptings from within seems less interfered with than the responses to stimulifrom without.

This experiment, though limited in scope, seems to suggest the value of the group Rorschach method for the objective evaluation of therapeutic programs. The method also makes it possible to differentiate between patients who may derive benefit from such procedures, and those who are not likely to do so.

# ANNOUNCEMENTS

## REGIONAL DIVISIONS

### Australian Division

At the second annual meeting of the Australian Rorschach Society, on June 1st, 1945, the following officers were elected: President, Dr. D. F. Buckle; Vice-Presidents, Dr. P. H. Cook; Dr. A. R. Phillips; Secretary-Treasurer, Miss E. A. Morey.

During the year the Society suffered a great loss in the death of the first President, Dr. P. M. Bachelard. Dr. Bachelard's contribution to psychological work in Victoria was considerable. When the Australian Rorschach Society was established, Dr. Bachelard, who had been using the test for some time in his work, immediately took a keen interest. He became the first President, not because he liked to hold office, for this was always somewhat of an embarrassment to him, but because he saw in it something he had long been keen about - the meeting on a common basis of Psychiatrists and Psychologists, for he felt that fellowship between these two groups was essential for the success of either.

In February, 1945, Pilot-Officer J. C. Kenna, who had been Secretary-Treasurer of the Society since its inception, tendered his resignation because of his transfer to another State. Miss Elwyn Morey was appointed Secretary-Treasurer in his place.

The Year's Work: The work of the Society has continued successfully during the year. Membership has grown, attendances at monthly meetings averaging twenty. Discussions following the papers have been lively and provocative. Psychologists and psychiatrists have not only enjoyed, but have profited from the opportunity afforded them to meet and discuss common problems.

Ten monthly meetings have been held, and one week-end seminar. Subjects and speakers were as follows:-

| | |
|---|---|
| June: | Capt. D. W. McElwain: The Factorial Approach to Personality. |
| July: | Dr. P. M. Bachelard: Rorschach Patterns in Delinquency. |
| August: | S/L J. F. Clark: The Rorschach Test and Vocational Guidance. |
| September: | Discussion on Psychopathology of Schizophrenia and Rorschach Patterns; Dr. P. H. Cook and Dr. D. F. Buckle. |
| October: | Dr. A. Phillips: Delusions |
| November: | Capt. C. A. Gibb: Some Problems of Personality Assessment. |
| December: | Discussion of Clinical Case Records: Dr. P. Kurton and Dr. P. H. Cook. |
| February: | Dr. K. S. Cunningham: Semantics and Psychology. |
| March: | Dr. H. Selby Link: Language and Thought in Schizophrenia. |
| April: | Dr. C. Wells: Psychological and Educational Problems of Parents, Children and Teachers in Modern Schools. |

During 1944 one week-end seminar, on the subject 'Rorschach Patterns in Neurosis' was held in the rooms of the Australian Council for Educational Research. Fifteen members of the society attended the sessions.

Until the formation recently of an Australian branch of the British Psychological Society, the Rorschach Society was the only organization in Australia which provided a meeting ground for psychologists and psychiatrists to hear professional papers and to discuss matters of mutual interest. Because of this, our society attempted to cover in its monthly meetings a much wider field than was originally intended; some meetings were held at which papers were read with little relation to Rorschach or clinical problems. It is hoped that there will soon be a joint meeting with Australian branch of the British Psychological Society so that arrangements can be made whereby the Rorschach Society may adhere more closely to its original purpose: To further the development of the Rorschach method of personality diagnosis 1. by offering adequate training facilities for professional groups interested in the use of the method, and by setting up definite standards; 2. by co-ordinating Rorschach research projects; 3. by the publication of such material as may be approved by the Society; 4. by the holding of regular meetings for the discussion of the Rorschach method as applied to clinical psychology and psychiatry.

Application of the Rorschach Test: The use of the Rorschach for special purposes, diagnostic and evaluative, has increased considerably, during the year, particularly in the Army and R.A.A.F..

The Department of Labor and National Service has continued to use the test in the selection of men and women for training as personnel officers in industry. It is also being used in the selection of speech therapy trainees at the Children's Hospital.

Further supplies of cards and books have been received this year from overseas, and the Society has supplied location charts and tabulation sheets to members and accredited workers. Much valuable information is, therefore, being collected, which should provide data for research into many aspects of the Rorschach test.

New York Division

At the next meeting, January 28, 1946, Dr. Helen Margulies will read a paper on Rorschach Responses of Successful and Unsuccessful Life Insurance Managers. At the following meeting, February 25, 1946, Dr. Anne Roe will read a paper on the Comparison of the Rorschach and the Thematic Apperception Tests. At the meeting of March 25, 1946, Miss Camilla Kemple will report on The Rorschach Method and Psychosomatic Diagnosis. The meetings will be held at the New York Psychiatric Institute, 722 West 168th Street at 8 P. M., on the last Monday of each month. Admission is free and everyone interested in the topics is invited.

At the last meeting, November 26, 1945, Dr. Theodora Abel presented the results of her study of Group Rorschach Testing in a Vocational High School (published in this issue). Persons who wish to discuss Rorschach investigations before the New York Division are requested to communicate with the chairman, Dr. Z. A. Piotrowski, 722 West 168th Street, New York 32.

Southeastern Division

The spring meeting, combined with a seminar for advanced students, conducted by Dr. Bruno Klopfer, will be held in New Orleans, Louisiana, April 15th to 18th.

Seminar schedule

Monday, April 15th, 7 to 9:30 P.M.
Tuesday, April 16th, 9:30 A.M. to 12 Noon, 2:30 to 5 P.M., 7 to 9:30 P.M.
Wednesday, April 17th, 9:30 A.M. to 12 Noon, 2:30 to 5 P.M.
Thursday, April 18th, 9:30 A.M. to 12 Noon

Seminar fee: $20. Applications to attend the seminar should be made before April 1st and sent to Dr. Bruno Klopfer, 3820 Waldo Avenue, New York 63, N.Y.

Preliminary instruction may be arranged if a sufficiently large group is interested. For further information write to Dr. Otto Billig, Highland Hospital, Asheville, N.C..

SUMMER WORKSHOPS 1946

At the Homestead, Crafts, N.Y., June 2nd to 22nd.
At the Occidental College, Los Angeles, Calif., August 12th to 31st.

Students may register for one, two, or three weeks; however, introductory seminars for beginners will be provided during the first week only. Beginners may continue with advanced seminars during the second and third weeks. No previous Rorschach training is required for beginners. Intermediate and advanced seminars and study groups (4 ninety minute periods daily) will be held throughout the three workshop weeks.

Applications to attend the workshops should be sent as soon as possible to Dr. Bruno Klopfer, 3820 Waldo Avenue, New York 63, N.Y.. Applications of members of the armed forces and veterans sent in before May 1st, 1946, will receive preferential consideration. Other applications will be treated in the order in which they are received as far as living accommodations at the Homestead and Occidental College are available.

Residence rates weekly for room and board at the Homestead will be approximately $30. Occidental College can provide residence for a limited number of students but no meals on the campus. Reservations for living accommodations at the Homestead and Occidental College should be made after the application has been accepted.

Tuition for both workshops is $20. per week.

Transportation: Homestead - A special bus or taxi, at fifty cents per person, will meet the train at the Railroad Station at Brewster. A convenient train usually leaves Grand Central Station, New York, on Sundays, at 2.25 P.M. and arrives at Brewster, N.Y. at 4.11 P.M.

Occidental College is situated on a beautiful campus in Eagle Rock, a residential section in the northern part of Los Angeles. It may be reached from downtown Los Angeles by street car and from nearby Pasadena and Glendale by bus.

## MEMBERSHIP COMMITTEE

At the December 7th meeting of the Executive Committee the following member was elected to fellowship in the Institute:

Schmidl, Dr. Fritz
149 West 72nd St.
New York, N. Y.

The following applicants were elected to membership:

Chamoulaud, Mrs. Muriel
500 West 122nd St.
New York, N. Y.

Crile, Mrs. Mary
676 La Loma Rd.
Pasadena, Calif.

Ehrenreich, Lt. Gerald A.
A.A.F. Regional & Convalescent Hospital,
Fort George Wright, Wash.

Muller, Dr. Frances A.
11201 Longwood Dr.
Chicago, Ill.

Sargent, Dr. Helen
1711 Hinman Ave.
Evanston, Ill.

Sloman, Mrs. Elsa
562 W. 113th St.
New York, N. Y.

Williamson, Miss Margaret O.
106 Columbia Hts.
New York, N. Y.

### Membership Requirements

Persons whose work and interests lie primarily in the study or treatment of human behavior and its disorders, and who are recognized by virtue of professional training, experience, and membership in professional associations as qualified psychiatrists, psychologists, psychiatric social workers, or research workers in these fields, may be elected to membership provided their qualifications conform to the following standards:

a) Possession of the M.D. degree or the M.A. degree in psychology or related fields. (This requirement can be waived only in exceptional cases.)

b) Intensive study of the Rorschach method under a recognized Rorschach instructor, and in addition evidence of administering and scoring at least 25 Rorschach protocols under supervision. This is in addition to the presentation to the membership committee of at least five records which have been administered and scored by the applicant himself.

c) At least two years of clinical or research experience in psychology or psychiatry or psychiatric social work acceptable to the training committee.

Members of the Institute are recognized as competent to administer the Rorschach method and score records. Since the requirements for membership are solely in terms of administration and scoring, the Institute can support a member's claim to proficiency only in this respect. Approval cannot be given to the interpretations of a person about whose interpretive skill the Institute has no knowledge. Obviously, if he is to achieve the degree of proficiency which can safely be approved as reliable by election to fellowship status he must have sufficient opportunity for practice. Thus the member attempts interpretations

on his own responsiblity, preferably under supervision, and with recognition that it is a learning process. To safeguard the interests of the patient or subject such interpretations should be either validated by a competent clinician or supervised by a competent Rorschach worker. Therefore membership does not imply an ability to undertake independent Rorschach interpretations, nor does it indicate that the member is capable of teaching or utilizing the method for research purposes.

Members of at least one year's standing, whose position and quality of work shall be approved by the training committee may be recommended to the executive committee for election to fellowship. Fellows of the Institute will be recognized as competent to administer the method, score records, interpret results, engage in Rorschach research or conduct training courses in the Rorschach method.

Application Procedures

Membership.

Each applicant shall be endorsed by his instructor and two sponsors, of whom at least one shall be a fellow of the Institute. Complete names and addresses of the sponsors should be listed on the application form. A list of members and fellows is published from time to time in the Rorschach Research Exchange. The most recent list appeared in Volume VIII, Number 4.

Each applicant must submit five records independently administered, scored and tabulated. The records should be sent to the chairman of the membership committee together with the application blank. Membership in the Institute is not dependent upon use of any one particular scoring method. The applicant must, however, demonstrate consistent, accurate, and proficient use of the system which he employs.

Fellowship.

Each applicant for fellowship shall submit five records completely scored and interpreted together with his application blank. A brief summary of case history material should accompany the record. The applicant will also be required to undertake blind analysis of a record sent to him by the membership committee after his application is on file.

General.

Application material is compiled by the membership committee for action by the executive committee. The applicant will be notified by the secretary of the committee's action. The executive committee considers each application on its individual merits, but does not supply the applicant with detailed description of its action.

It should be noted that the usual time for completion of membership applications is six months. Fellowship applications may take up to one year for completion.

In order that the membership committee may be able to evaluate application material it is essential that submitted records be legible, preferably typewritten, and that they be accompanied by careful indication of the location of the responses. Please keep copies of the records submitted, and do not send the records to the committee by registered mail.

Applicants whose material is not found to be acceptable may submit new applications after a period of at least one year, after they have received further training and experience.

For further information write to the chairman of the membership committee, Dr. Kate N. Levine, 237 West 15th Street, New York 11, N. Y.

## LIST OF PUBLICATIONS

Grune & Stratton advises us that they have received a large shipment of Rorschach cards from Switzerland. These cards will sell at the old price of $4.50.

# INDEX TO VOLUMES VIII AND IX

(The Roman Numerals refer to Volumes the Arabic Numbers to Pages)


| | | | | | |
|---|---|---|---|---|---|
| Vol. VIII, 1944 | No. 1 pp. | 1 - 45 | Vol. IX, 1945 | No. 1 pp. | 1 - 58 |
| | No. 2 pp. | 46 - 103 | | No. 2 pp. | 59 - 104 |
| | No. 3 pp. | 104 - 163 | | No. 3 pp. | 105 - 152 |
| | No. 4 pp. | 164 - 202 | | No. 4 pp. | 153 - 218 |


## Author Index Vols. VIII and IX


Abel, Theodora M.....IX: 105, 178
Apfeldorf, Max..... VIII: 189

Balinsky, Benjamin..... VIII: 184
Beck, Samuel J. (Book Review)..... IX: 41
Burgemeister, Bessie B..... IX: 111

Collins, Louise..... VIII: 38
Cowin, Marion..... IX: 130

Davidson, Helen H..... VIII: 164
Due, Floyd O..... IX: 169

Ebert, Elizabeth H..... VIII: 10

Faterson, Hanna F..... IX: 23
Feldberg, Theodora M..... VIII: 141

Gair, Mollie..... VIII: 31
Geil, George A..... IX: 201
Gerson, Martin J..... VIII: 104
Goldfarb, William.....VIII: 92 IX: 8
Goldstein, Kurt..... IX: 1
Grassi, Joseph K..... VIII: 104

Hallowell, A. Irving..... IX: 153
Harriman, Phillip Lawrence..... IX: 41
Harrower, M. R.....VIII: 125 IX: 46
Hertz, Marguerite R.....VIII: 10 IX:46, 134

Kemple, Camilla..... VIII: 46
Klopfer, Bruno.....VIII: 46, 92, 164
Klopfer, Walter G..... IX: 207
Krugman, Morris..... IX: 85

Levine, Kate N..... VIII: 104

Munroe, Ruth..... VIII: 46

Piotrowski, Zygmunt A..... IX: 189
Prados, M..... VIII: 178

Rosenberg, Seymour J..... VIII: 141
Rosenzweig, Saul..... VIII: 41
Ross, Sally..... VIII: 1
Ross, W. D..... VIII: 1, 159
Rothman, Eva..... IX: 1

Schmidl, Fritz..... IX: 123
Siegel, Miriam G..... IX: 126
Stander, K. H. (Book Review)..... VIII: 38
Steiner, M. E..... IX: 46
Swift, Joan W..... IX: 74
Symonds, Percival M..... IX: 85

Tallman, Gladys..... IX: 111

Vorhaus, Pauline G..... VIII: 71

Wright, Erik M..... IX: 169

Zoltan, Jacob..... VIII: 40

SUBJECT INDEX, VOLS. VIII - IX

Animal Symbol..... IX: 9
Anxiety State..... IX: 207
Artists..... VIII: 178

Bibliographical References.....VIII: 9, 29, 37, 91, 100, 140, 161, 177, 191
IX: 7, 22, 40, 45, 72, 84, 95, 110, 122

Book Reviews.....VIII: 38 IX: 41, 46, 85

Case Studies.....VIII: 93, 104, 149, 184
IX: 2, 14, 124
Child Guidance.....IX: 126, 130
Children, pre-school children,.....VIII: 71 IX: 74
6 and 8 year olds,..... VIII: 10
7 year olds,..... VIII: 31
High school,..... IX: 176
Pre-adolescents,..... IX: 201
Sex differences,..... IX: 81
Clinical Application..... VIII: 1
Content.....VIII: 77 IX: 79, 153, 169
Content Symbolism.....VIII: 40 IX: 9, 169
Culture and Personality..... IX: 153

Detail responses..... VIII: 10,71
Disability..... VIII: 2

Epilepsy..... VIII: 38

Form Level..... VIII: 164

Group Method - see Large Scale Application
Group Therapy..... IX: 207

History of the Rorschach Method..... VIII: 41
Homosexuals..... IX: 169
Hypnosis..... VIII: 104

Inspection Technique..... VIII: 46
Instability..... VIII: 2
Institution Children (effect of institutional care)..... VIII: 92

Large Scale Application..... VIII: 125
IX: 46, 178, 207

Malingerers..... VIII: 141
Membership list.....VIII: 194 IX: 58, 103 150
Mental Defectives..... IX: 105
Military Use.....VIII: 141, 159 IX; 207
Multiple Sclerosis..... IX: 111

Organic Lesions of the Nervous System..... IX: 111
Opinion Survey..... IX: 23, 30

Painters..... VIII: 178
Personal Selection..... VIII: 184
Physiognomic Phenomena..... IX: 1
Popular Responses..... IX: 153
Pre-school children - see Children
Presidential Addresses.....VIII: 125 IX: 59
Psychopaths..... IX: 201

Ratings..... VIII: 1, 164
Records, see Case studies
Rorschach, Theory and History.....IX: 30, 41, 59, 85, 189

Schizophrenia..... IX: 1, 189
School Guidance..... IX: 130, 178
School Success..... IX: 105
Social Work..... IX: 123

Training Committee.....VIII: 194 IX: 58, 103, 150
Treatment Planning..... IX: 134, 207

Vocational Guidance and Selection.....VIII: 184 IX: 178

Stud. Sek. Psych.